Cranberries

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Culture

Most of the cultivated cranberries *(Vaccinium macrocarpon)* in the United States are grown in Massachusetts, New Jersey, Wisconsin, Oregon and Washington. Typical sites chosen for the development of cranberry land are swamps that have a pond nearby for a reservoir. In bog construction, the surface vegetation is removed, the peat graded, and in most cases the surface is covered with one to four inches of sand. Vines are then pushed through the sand with dibbers or rolled in with discs. The entire bog is set, leaving no space for paths or roads. The first crop is harvested three or four years after setting the vines, and some bogs have been in bearing for more than 75 years. The total cost of building and maintenance until the first commercial crop is ready is three to four thousand dollars per acre.

Nearly all cranberry locations are subject to frost, and the vines and berries are protected by flooding and sprinkling with water from the reservoir. The vines are also flooded in the winter in Massachusetts, New Jersey and Wisconsin, to protect them from desiccation.

Harvest

A large part of the crop is harvested with scoops, a modification of those developed in the Scandinavian countries years ago. In Massachusetts and New Jersey, the harvesting is done on dry bogs. In the other regions, the bogs are flooded to raise the berries, and scooping is done in water. Recently, harvesting machines have been developed, and their use is increasing quite rapidly. The berries from dry bogs are put into field boxes of a little more than a bushel in capacity. Berries from water harvest are dried before storage. Water harvest is not harmful because disease organisms can enter the fruit only through breaks in the skin.

Varieties

The varieties of cranberries that produce the commercial crop have all been selected from the wild and propagated asexually. The total list of varieties comprises well over a hundred names. Most of the commercial crop is produced by ten or twelve varieties. Usually, the varieties are somewhat mixed because several stem pieces are taken when the original selection is made, and also because volunteer seedlings occasionally develop among the plants originally selected.

About 42 per cent of the acreage in the United States is planted to the **Early Black** variety. The harvest of Early Black starts soon after Labor Day and may continue into October. The berries color well and become nearly black when harvested late. The berries of this variety, when harvested early, will also color well in storage. Early Black berries are small, 95 to 125 berries per cup. Cranberry size is expressed as the number of berries per cup—a parallel sided container with a capacity of one-half pint.

The **Howes** variety has been set on about 22 per cent of the acreage in the United States. This variety is late, being usually harvested in October and early November. Howes is grown in all the cranberry growing regions, but like the Early Black, its greatest acreage is in Massachusetts. Howes is very susceptible to False Blossom, a

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virus disease which has reduced the acreage in New Jersey. In other sections it produces well, but not so well as certain other varieties that are better suited to that region. The fruit is a little larger than Early Black, with a cup count of 80 to 110.

McFarlin is the third in importance, and represents about 8 per cent of the total acreage. Like Howes, it is grown in all regions, but is most important in Oregon and Washington, where it is the principal variety. McFarlin is also important in Wisconsin. It seems to be more subject to fungus diseases than the others, but produces large crops of large berries with a cup count of 50 to 80. The berries mature late and do not color in storage, and must therefore be ripe at harvest.

About 7 per cent of the cranberry acreage is planted to **Searles,** a variety grown only in Wisconsin, where it was selected. It is a midseason variety which colors to some extent in storage, but does not develop so much red as Early Black or Howes. Its cup count ranges from 80 to 100. Searles is the most productive variety grown. In 1948, the yield per acre for Searles in Wisconsin was 99.4 barrels, 100 pounds of fruit per barrel.

Early Black, McFarlin, Howes and Searles represent 78 per cent of the cranberry acreage in the United States. The remaining acreage is set to other varieties, which include the natives —unnamed selections from the wild.

In 1929, Bergman, Bain and Beckwith started programs with the primary goal of producing varieties of cranberries that are less susceptible to False Blossom. Over 11,000 seedlings were grown, and from these, three have been named—Stevens, Wilcox and Beckwith, and 20 are still being studied.

Stevens, a cross of McFarlin x Potter, is a productive, large-fruited, midseason or late-midseason variety with a good gloss. **Wilcox,** a cross of Howes x Searles, is also productive, with slightly larger berries than Early Black. Its vines are rather coarse, but harvest well. **Beckwith,** a cross of McFarlin x Early Black, is considerably more productive than Early Black or Howes, but not equal to Wilcox or Stevens. Its berries are larger than Stevens and mature about the same time as Howes. Its uprights are long, and the berries are borne high, making it a variety that is easily harvested.

The Croatan Blueberry

A new blueberry named Croatan was introduced in January of 1955 by the North Carolina Agricultural Experiment Station and the Bureau of Plant Industry. The Croatan originated as a seedling from the cross Weymouth x F–6 made by the late F. V. Coville.

Croatan ripens later than Angola and Wolcott, but ahead of Murphy. It tends to ripen about 70% of its fruit during the first two weeks of harvest. Its plants are erect, exceptionally vigorous and very productive. The fruit is borne in long, fairly loose, attractive clusters. The berries have been slightly larger than those of Angola, Wolcott, Weymouth and Murphy. The berry is aromatic and sweet to acid, depending upon the degree of ripeness.

The plants of Croatan are resistant but not immune to canker, and are more resistant to bud mite than Wolcott, Murphy and Weymouth.

The Croatan blueberry is recommended for trial as a productive, early, canker-resistant variety for eastern North Carolina, but not northward. Sources of plants can be obtained by writing to E. B. Morrow, Dept. of Horticulture, State College Station, Raleigh, North Carolina.