

The 'Searles' Cranberry

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The commercial cranberry, *Vaccinium macrocarpon* Ait., is native to bogs of the northeastern US and southern Canada. 'Searles' is among the more than 100 cranberry selections from the wild propagated and eventually introduced as cultivars over more than 150 years of commercial cultivation of this species.

In addition to many of these named selections, seven cranberry cultivars from a USDA breeding program and one cultivar from Washington State University were recently compiled by Dana (3). The descriptions compile information from partial listings by Hedrick (4), Chandler and Demoranville (2) and Brooks and Olmo (1). Additional cultivars were added for which information was obtained from records of the Wisconsin Cranberry Experiment Station for 1903-1917

Hedrick, in 1922, referring to 'Searles Jumbo' described the fruit as being of the Jumbo type, an apparent reference to various native cranberry selections noted for large fruit size. The 'Searles Jumbo' berry is olive shaped, uniform bright crimson red when ripe and fully exposed to light at the top of the vine canopy. Fruit is uniformly large, not glossy, only rarely mottled. The cultivar is designated as "medium" or mid-season ripening, harvested in late September or early October, after 'Ben Lear,' in Wisconsin.

'Searles Jumbo' was discovered and propagated by Andrew Searles (1852-1933) in his native bog near Walker, west of the city of Wisconsin Rapids, at that time named Grand Rapids, Wisconsin. Neither the exact date nor the circumstances of the discovery are adequately documented although Pel-

tier indicates vines were collected by Searles in 1893 and placed in nursery plots at the nearby Cranberry Experiment Station in 1894 (5). Larger plots remained at the Experiment Station until it closed in 1917 due to lack of funds. Of the named cultivars originating in Wisconsin 'Searles Jumbo' was often noted as the outstanding selection in the test plots. Eventually the plots were plowed up and replanted to commercial cultivars.

Reportedly the cultivar was slow to be planted as a result of a slow increase in vines and the high cost of cuttings. By 1928 'Searles Jumbo' acreage in Wisconsin had increased to 371 acres and doubled by 1939 to become the leading cultivar in Wisconsin. By 1956, 2250 acres of 'Searles Jumbo' (58% of the total 3900 acres of cranberries in Wisconsin) were in production (8). Prior to 1930, planting stock of 'Searles Jumbo' originated mostly from the Searles bog. Subsequently, rapid increases in acreage resulted from the greater quantity of vines for sale by other growers.

Some confusion exists as to the correct spelling for the cultivar name. In 1905, O. G. Malde, superintendent of the Cranberry Experiment Station in his personal notes on cultivars (unpublished) lists the name as 'Searls Jumbo.' According to Clarence A. Searles, grandson of the originator, spelling of Andrew's family name changed to Searles about 1918 (personal communication). A concerted effort was made by Andrew Searles to change the cultivar name to 'Searles Jumbo' in usage and publications after that time. Hence, Hedrick's reference in 1922 to 'Searles Jumbo' (4). The term 'Jumbo'

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is now rarely used; by usage 'Searles' has become the accepted name in the trade.

Peltier in 1970, summarizing his own and grower observations characterized 'Searles' as a "rapid grower," prolific in blossoming with large berries of a deep red color (5). Less favorable characteristics he noted included susceptibility to field and storage rots, especially end rot (*Godronia cassandrae* Peck), also known as stem rot. The cultivar was generally classified as having poor keeping quality due to its thin fruit skin and rather deep stem pit, easily wounded when pulled from the vine. Storage losses as high as 25% or more were noted in some seasons. At present, this susceptibility to storage losses is of little concern as most Wisconsin berries are machine harvested, cleaned, sorted, and frozen in a period of one to three days for subsequent processing.

As with other species, cranberry cultivars selected in a specific area may be best adapted and most productive within a narrowly defined geographic region. Except for the limited acreage in Oregon and Canada, 'Searles' has become the predominant cultivar only in Wisconsin.

In 1968, the latest official survey of cranberry cultivars by acreage made by the Wisconsin Statistical Reporting Service noted 7001 acres of cranberries in Wisconsin (7). Of that acreage, 61% was planted to 'Searles.' Despite some planting of other promising cultivars in the mid 1980's unofficial estimates indicate 'Searles' currently remains the predominant cultivar, approximately 60% of the total of nearly 8000 acres (6).

Cranberry production per unit area in Wisconsin more than doubled from 7,070 kg/ha in 1950 to 18,140 kg/ha in 1984. This dramatic increase in productivity resulted from rapid grower adoption of improved cultural management and improved fertilizer and pest control practices, including weed control. 'Searles' throughout this pe-

riod remained predominant and consistently the most productive cultivar. In 1985 cranberries contributed more than \$350 million to Wisconsin's total agribusiness economy. For more than 50 years, the 'Searles' cultivar indisputably has ranked among the greatest contributions to the growth of this important, unique agricultural industry in Wisconsin. Andrew Searles perhaps never fully envisioned the future impact of his fortuitous selection of a native cranberry in 1893. We are indebted to him for his ambition and foresight in selecting and early testing of this important, productive cranberry cultivar.

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