

Commercial Cranberry Production in Manitowish Waters... Who, What, Where, When and Why?

By Michael and Barbara Bartling 5/2022

What are cranberries and where do they grow?

Commercially grown cranberry plants are in the Plant Kingdom and Family; Ericacea (or acid loving plants), Genus; Vaccinium, Species; Macrocarpon and are a selection from the native cranberry Species Oxycoccus. Cranberries are a wetland plant. Early Wisconsin commercial cranberry cultivated varieties were selected from the wild in the Wisconsin Rapids area, and until the 1980s, most of Wisconsin's cranberries were the Searles Jumbo cultivar (cultivated variety). Searles were selected for traits of yield, time of ripening, and maintaining quality. More modern varieties are derived from crossbreeding programs, but selected for essentially the same traits. Cranberry plants with desirable features are expanded into cranberry beds by planting vine cuttings or rooted cuttings, so that every plant in the bed is genetically identical.



In 2020, the most common cranberry variety planted was Stevens, and it originally came from a USDA breeding program in Beltsville, Maryland in the 1940s. Until the 1980s, Searles were two-thirds of the cranberries grown in Wisconsin, including Manitowish Waters. Today, the cranberry farms in Manitowish Waters grow predominantly Stevens variety, and the same is true for Wisconsin and most other cranberry growing regions. New varieties planted in Manitowish Waters and all other areas over the last 10 years or so come from breeding programs paid for by cranberry growers that are conducted at UW Madison, Rutgers University in New Jersey, and some grower-developed varieties.

Cranberry plants grow just above the water table, and their root system consists of root fibers (versus root hairs like you find on corn plants) that don't grow down to seek water, so water needs to be brought to them either by surface or sub-surface irrigation to keep them constantly damp but not submerged in water for extended periods. Native cranberries are found in nature in marshes growing on sphagnum moss hummocks that wick water to the plants and keep them well drained. Commercial cranberry production mimics these ideal conditions.

Cranberry vines, when grown commercially, grow in a solid mat about six inches tall in beds approximately three acres in size surrounded by a dike and ditches. The beds are usually about 125' wide by 1000' long and laser leveled to perfectly flat. Surface and subsurface drainage and irrigation are installed prior to planting the beds.

Cranberries are a perennial plant that develops fruit buds for the next crop late in the summer as the current crop is set and develops. These buds require some amount of below-freezing temperatures in the winter to harden off the fruit bud through the winter and force them to fruit again the next summer. The buds also need to be protected from severely cold winter temperatures, or they may be desiccated, or freeze burned, so the beds are flooded in winter and stay frozen in ice until spring. Ice doesn't get much below 32 degrees even when air temperatures are minus 20.

Wild cranberries are found in marshes all around the Manitowish Waters area and across North America north of about 40 degrees latitude where soil and water conditions are right.

Why were commercial cranberry farms developed in Manitowish Waters?

Commercial cranberry production needs these basic ingredients: A plentiful source of water that is ph neutral to quite acidic, land that has acidic soil (ph 4.0-6.0), a nearby sand source, and a marketplace for the crop. A large area in southwest Manitowish Waters has these conditions and was available for acquisition in the mid-1940s.

A boom in cranberry demand occurred during World War II when cranberries helped supply the war effort with durable, familiar food products of unsweetened dried cranberries and canned cranberry sauce. Post-war economic growth and commercial ventures were common in many industries across the country and entrepreneurs abounded.

From the 1800s, cranberries were grown commercially in Massachusetts, New Jersey and Wisconsin. Until the 1940s, cranberries were predominantly raised commercially in Wisconsin in an area between Wisconsin Rapids and Tomah in what is referred to as "Glacial Lake Wisconsin," what is now a huge flat marsh with rivers and drainages. Some Wisconsin cranberry growers began looking for suitable areas to expand production into new areas, and Manitowish Waters, Eagle River and Hayward were identified as having promising potential.

Prior to development, the cranberry marsh land in Manitowish Waters consisted of mostly shallow, low-lying acidic swampland that was desirable for growing cranberries. Little Trout Lake is adjacent to this tract of land and acts as a good source of water with the Manitowish chain of lakes nearby as a backup water source. Near the northern edge of the tract (along Cranberry Boulevard), there is a glacial drumlin, or sand ridge, that runs from Alder Lake westerly into Powell Marsh. This sand serves as the sand source for most of these farms.

What is the previous history of the land prior to cranberries in southwest Manitowish Waters? And where are the cranberry marshes in Manitowish Waters?

In the early 1900s and toward the end of the logging era in far northern Wisconsin, commerce was shifting from logging to recreational and agricultural uses. After the logs were gone, railroad companies wanted to keep their trains busy hauling farm produce, goods and supplies.



1937 Pre Cranberry Farms

2022 Cranberry Farms

In southwest Manitowish Waters, a large tract of land, about 1000 acres, destined to become cranberry marshes stretched from the east side of Little Trout Lake along the south town line of Manitowish Waters and extended northwest along the lake shore to what is now Powell Marsh Wildlife Refuge. The tract then moved north and east to near Bolin Lake and Little Manitowish Lake before turning east to the Trout River and along the southwest side of Alder Lake and finally south to near Wild Rice Lake. The future “cranberry tract” had been owned prior to 1898 by W.D. Connor and his wife Mary B. Connor (a lumber family from Auburndale, Wisconsin with extensive land holdings throughout northern Wisconsin). This property was purchased by S. Pierce and his wife L.W. Pierce in 1898. This land was mostly swamp and the areas that had contained trees had likely been cleared, so the land was sold for a low price (\$165).

In 1901, Richard H. Southgate, owner of the Hotel Congress in Chicago, and Marvin H. Hughitt, president of the Chicago Northwestern Railroad, purchased what would become the “cranberry tract” of land. They likely had been staying at places like Mann’s Resort on Big Trout Lake, fishing and recreating for a few years, when they decided to build a place of their own. They soon developed a large home/estate on the northeast shore of Little Trout Lake for fishing and recreation. They also developed a series of canals and locks that went from the Lac du Flambeau railroad depot westward to Headflyer, White Sand, Sunfish, Crooked, Ike Walton, Little Trout and Alder lakes. The canals and lakes allowed nearly exclusive access to the estate to fish and travel around the area. Few roads were open to these areas at the time, and cars were difficult to get around in and maintain nor dependable. In 1904, the *Lakeland Times* reported that Marvin Hughitt brought in 100 railroad workers to construct the canal system. In 1905, you could drive your boat from the Flambeau chain of lakes to the Manitowish chain!

After a few years, Southgate acquired the property from Hughitt, and Hughitt went off to develop his own similar estate called Maplewood, near Land O’Lakes, part of which eventually became Sylvania Wilderness Area. Southgate died in 1912 after he suffered a debilitating illness for a year prior. His widow, Ella, married Jacob Edson Himes, who, investing heavily in shale oil extraction in Colorado, ended up losing the Hotel Congress and the estate/property on Little Trout Lake to bankruptcy early in the Great Depression after the 1929 stock market crash. According to Cal LaPorte, Himes ended up being a bellhop at the Hotel Congress in Chicago, a hotel that he had owned. And the canal system was abandoned, but parts of it can still be seen today in aerial images.

The Lutheran Aid Association then acquired the property and held it until 1945 when George "Doc" Millard bought the "cranberry tract" and, in turn, sold most of it to Vernon Goldsworthy, who parceled it off to the aspiring future cranberry growers of Manitowish Waters. Millard retained only a cabin that had been the caretaker's cabin for the large Southgate house and a quarter mile of lake frontage on Little Trout Lake. Millard used the property for recreation and did not grow cranberries. The large house that Southgate built had burned down in the early 1930s during one of the infamous Powell Marsh fires.

Who were the first cranberry growers in Manitowish Waters?

The mid-1940s marked the beginning of future cranberry production in Manitowish Waters. The inspiration for this development began with Vernon "Goldy" Goldsworthy, a grower and industry promoter in Wisconsin Rapids, Wisconsin, where cranberry marshes had been operating since the 1880s.



1947 MW First Cranberry Growers and advisors (from left to right): Guy Potter (advisor), Frank Koller, John "Mac" McFarland, Clarence Weber, Ab Alexander (Weber Farm manager), Delbert Bartling, Herb Indermuehle, Bert Leasure (Koller partner/financier). Kneeling (from left to right): Howard Folsom and Harold Gross

Goldsworthy and others, such as Guy Potter, a cranberry grower and entrepreneur from Necedah, and Doc Millard, who was an optometrist from Wisconsin Rapids, had identified several potential marshland areas in northern Wisconsin where cranberry production looked feasible. Goldsworthy and others chose Thunder Lake between St. Germain, Three Lakes, and Eagle River, but Goldsworthy and Potter

also chose to pursue the Manitowish Waters region along the northeastern shore of Little Trout Lake with others. In 1945, Potter also started a new cranberry farm with an investor partner at the same time on Lake Du Bay, south of Wausau.

In 1945, Millard purchased the large parcel from the Lutheran Aid Association, kept the lakefront parcel, and in turn sold the rest to Goldsworthy who then subdivided it into eight smaller marsh parcels. Goldsworthy sold one parcel each to Delbert and Myrtle Bartling (who had a dairy in Necedah, Wisconsin); Thurman Doman (Doman initially began building beds, but the project was soon abandoned, and Howard Folsom eventually purchased and developed it.); Howard Folsom; Frank and Betty Koller (Frank was just out of the Naval service during WWII and was financed by Betty's father, Bert Leasure, a Chicago businessman.); Herb and Florence Indermeuhle (who had a dairy farm in Plainfield, Wisconsin); Harold Gross (who worked for the USDA in Chicago); John "Mac" and June McFarland (financed and overseen by Potter); and Clarence Weber (who had a lumber mill in Shawano, Wisconsin). Goldsworthy oversaw the Weber Farm development for Weber, and Ab Alexander was the farm manager.

Manitowish Waters' town infrastructure was still quite undeveloped in 1946, beyond supporting logging and recreation to and around the lakes. Steep challenges faced the cranberry pioneers as they began a totally new agribusiness venture in Manitowish Waters. An entrepreneurial spirit and, most importantly, having a relationship with Goldsworthy or Potter (the visionaries with cranberry growing experience and connections to the market place) brought these agricultural pioneers to Manitowish Waters. A network of cranberry connections began with Delbert Bartling as good friends with Potter, Goldsworthy and Millard; June McFarland was Potter's step daughter; Betty Koller's aunt was Potter's sister-in-law; and Frank Koller had worked on Potter's new Du Bay, Wisconsin cranberry marsh. Adding to the mix of growers, Delbert also recruited his brother-in-law Herb Indermuehle. Howard Folsom was a UW Madison track teammate of Goldsworthy.

When were the first cranberry farms in Manitowish Waters established?

In 1946 when this group moved north, none of them had grown cranberries, and they all had other businesses to run or worked at other jobs. No one lived on the "cranberry tract" of Manitowish Waters, so there were no roads, electricity, or telephone service. To access their farms, these cranberry pioneers built what is today Alder Lake Road and the bridge over the Trout River by Wild Rice Lake. They cleared the right of ways for power lines and eventually for phone lines. Early on, phone messages were hand delivered to the farms for years from Art and Anita at Ehlert's grocery store on Hwy 51 (across from what is now Rustic Roadhaus).

It was tough going in those early days. According to Betty Koller, "We went from woods to swamp to mud." Myrtle Bartling said of Betty, "She worked in the field like a man." Out of necessity, the farm families worked cooperatively, designing a network of common roads, dikes, and ditches; building water pumps and dam structures; and helping begin construction on each other's property. First, the focus was on McFarlands, "since that was Mac's business" (Mac owned a dragline and a bulldozer), then the rest of the properties were constructed over time. Mac did the scalping and bulldozing of each marsh into cranberry beds and dikes, and dredged to create ditch and dike systems to flood and drain the cranberry farms. Then, each grower finished them on their own; dug side ditches, finished leveling cranberry beds; and planted cranberry vines. This work was mainly done with a wheelbarrow and a No. 2 shovel. A spirit of cooperation prevailed throughout these formative years, helping each other survive

and manage any way they could. “We used to have fun. We were all one family then,” stated Herb Indermuehle. They entertained amongst themselves and watched each other’s children. Charlie Rayala Sr. helped build water pump structures, pump houses, houses, warehouses, and eventually managed the Weber Cranberry Farm.

After the first year or so, each grower had only about 10 acres of cranberry beds built to be planted the next spring. It took four to five years for cranberry vines to reach full production, so most of these new properties were not of significant scale or producing well until the 1950s and beyond.

Cranberries were primarily a fresh fruit item until the 1960s, sold at Thanksgiving, Christmas and Easter. Early harvest was accomplished by using hand rakes or scoops, working in shallow flooded cranberry beds. The berries were then poured into slatted wooden boxes, carried off the beds, and placed on the dikes to dry. Then, the berries were milled to remove chaff, packaged and hauled to the train station in Manitowish where they were shipped by rail to a handler to sell in Milwaukee, Chicago and beyond. Any berries that did not meet the quality requirements for fresh fruit were sold and processed into canned sauce or juice.

What are the cranberry farms in Manitowish Waters today?

By the 1990s, these properties had grown to nearly 600 acres of cranberry beds and remain so today. The product line for cranberries had also expanded from seasonal fresh fruit sales to where juice and juice blends became the main use for the cranberry crop though canned sauce and fresh fruit sales continue. Fresh cranberry sales were 90% of the end product through the 1950s, and today they represent less than 5% of sales with processed cranberry products representing the other 95%.



The 1990s and 2000s saw the sale of some of the original family farms. In 1996, Koller’s and McFarland’s sold to Northland Cranberries, which, in turn, sold to Vilas Cranberry, LLC in 2004. Indermuehle’s Alder Lake Cranberry Corp was sold to Orange Farms, LLC, owned by the Orange County, California Pension Fund and managed by Farmland Management Services and John Hancock Agricultural Investments.

During this time period, sweetened and dried cranberries (Craisins) became the “new” cranberry product. Today, 75% of the world’s cranberry crop is made into Craisins, and the cranberry juice concentrate is a byproduct of this process and made into juice drinks. Incidentally, the cranberry hulls that are now Craisins used to be a waste product of the cranberry juice business and were disposed of.



In 2009, a new cranberry property was added to our community. The Baer family established Broken Arrow Cranberry on the east side of Alder Lake adjacent to South Townline Road.

Since the 1940s, some of these once family-owned properties have expanded, consolidated, and changed ownership. Some farms have remained under family leadership and moved to the next generations. Harold Gross sold his farm to Fred Bartling (Delbert and Myrtle's son) in the 1960s, the Indermuehles acquired the Weber Farm in the 1980s and Folsom's split their farm with Don Rayala after Howard Folsom passed away in the 1980s.

New cranberry farms have been established over time in our and surrounding communities and in Canada, Chile, China and some eastern European countries as well. From remote beginnings of vacant marsh land to today's developed and productive farms, cranberries are an important commercial agricultural business in Manitowish Waters. The farms in Manitowish Waters are among the best-producing cranberry farms in the world. In 2020, Wisconsin produced two-thirds of all cranberries in the world!

Click on the links below to read about the specific history of these and subsequent cranberry marshes in Manitowish Waters.