

## Malt and Me: Shaken and Stirred

Last month I helped board member Dan Dyke set up a still for a demonstration. That's right, Colvin Run Mill has a real still. Confiscated from around Fair Oaks, it is now part of the Park Authority's historic collection. It stands to reason that a grist mill would be associated with a still since both use grains. In fact, Mr. Carper, the first to operate the mill, was granted a license in 1822 to sell "ardent sprits."

No, we can't make moonshine. But we can lay out materials used in process, one of which is the mash made by mixing warm water and coarsely ground corn to begin "malting."

Malting? Making malt? The word conjured up memories, old and new. Malted milk shakes whipped up by a Hamilton Beach shake maker (grandkids love it!). Hot Ovomaltine on a winter's day. Whopper malted milk balls at the movies. Advertisements for Colt 45 malt liquor (I only tried it once). 12-year-old Macallan single malt in Scotland accompanied with Walker's shortbread biscuits. What is malt? How can be it used in so many ways and follow me around?



### The Making of Malt

Malt is any kind of cereal grain that has sprouted, triggering enzymes that break down the grain's starch to a simple sugar called maltose. Thus, the name malt. Other simple sugars are fructose, glucose, and sucrose found naturally in fruit and some vegetables, and lactose in dairy products. If you were wondering, "ose" is Latin meaning "full of," like verbose (full of verbs (words) and jocose (full of jokes (humor)). For sugars it means full of sweetness.

Malting is the process by which the maltster makes malt. First stop is the maltings also known more prosaically as a malthouse or malting floor. The grain is spread out on the floor and dried. Then it is steeped in water two or three times a day for a few days until it has absorbed sufficient moisture to begin to sprout. This "green malt" is spread on the floor and is constantly turned over to air dry, its sweet aroma hinting at its possibilities.

The final step is toasting in an oven or kiln to stop the sprouting process and achieve the desired color – very pale to amber to chocolate to black for more robust malt, depending upon its intended use. Basic malting is timeless. Commercial production uses fans, vats, and pneumatics (forced air).



Barley is the most malted grain because of its high content of enzymes to release the simple sugars and a husk that protects the seed from damage during malting. Wheat, rye, oats, rice, and corn malts are less common.

## Sweet to Savory

Malt-based sweet and savory foods are as old as malting itself. More than 5,000 years ago in Africa, China, Iran, and Egypt barley malt was boiled with water to make a porridge. Wild yeast would convert sugar in the leftover gruel to alcohol. The person partaking of the leftovers probably experienced the first “happy meal,” a little gayer if a little unsteadier, for the experience.

Fast forward to the 1870’s. James Horlicks sought to develop nutritional supplements to substitute for unpasteurized, often unhealthy, raw milk. He mixed malted barley with water, which brewers will recognize as “wort.” The wort was completely dried to make malt powder which was then mixed with ground grains and milk and dried again. Presto: malted milk, easily digestible, packed with protein, calcium, and vitamins D and C. A health dynamo.

James couldn’t interest hometown investors in London to finance production, so he joined his brother William in Chicago. They formed J&W Horlicks to manufacture their patented malted milk drink. Perfect for infants, polar explorers, and troops in the trenches in WWI, Horlick’s, which had moved to Racine, Wisconsin, was a household name. James returned to England in 1890 importing malted milk from America and eventually established a British production facility.



In 1927 Elbridge Amos Stuart moved into the malt business, branching out from his condensed milk origins. Originally the Pacific Coast Condensed Milk Company, Stuart admired an ad of cigars adorned with carnations and adopted the name. “Home of contented cows,” Carnation’s slogan mimicked Stuart’s philosophy that healthy cows made good milk. The Swiss, whose cows are very contented grazing in cool alpine meadows, jumped in with Ovomaltine, (Ovaltine in the U.S.) adding dried eggs (Ovo, from the Latin *ovum*, meaning “egg”) and, of course, chocolate.



The candy crew also got into the act. Mars Inc. introduced the Milky Way candy bar in 1924, taking its name and malt barley taste from the popular malted milk drink, not the galaxy. The owner’s son, Forrest Mars Sr., oversaw the development of malt-based Snickers bar, named after the family’s favorite horse.



Forrest split with his father and moved to the United Kingdom where in 1936 he developed Maltesers, malted milk balls covered in chocolate. Advertised as a “lighter way to enjoy chocolate” (about 1/7 as fat as pure chocolate), it was portrayed as an energy food and aimed at women who wanted to “slim down.” Back in America the Overland Candy

Company introduced “Giants,” malted milk balls whose name changed to Whoppers in 1949 with a change in ownership.

Naturally beer brewers were major producers and consumers of malted grains. For example, Coors Brewing Company supplied Mars with malt. Malt syrup, boiled down, concentrated wort, was a hit during Prohibition and is an essential ingredient in bagels and pumpernickel bread.

Anheuser-Busch, known for its frothy, pale, twice fermented beer modeled after a brew of Budweis, a town in Bohemia, got into the liquid health market with Malt-Nutrine. Advertisements in 1885 proclaimed that "Every bottle is charged with the strength and glory of the golden grain" (barely and hops), The beverage contained 2% alcohol and its target market was the sickly, aged, and women, especially young mothers.

Advertisements carried in Cosmopolitan and Good Housekeeping promised nourishment and restful sleep for baby and mother. I'll bet! My grandmother, a product of the Malt-Nutrine age, promoted health benefits of beer over Coke Cola, much to my mother's chagrin!



In 1937 the Grand Valley Brewing Company introduced malt liquor to the United States. Definitions of this beverage are not fast and hard, but generally sugar is added to malted barley to yield higher alcohol content. Names like “Colt 45” conveyed the high power of the beverage, inspiring the song, “My Malt's Playing Tricks on Me.”



Scotch whiskey, first mentioned in 1495, traditionally was made from barley, rather than rye, corn, or wheat. A single malt whiskey was the product of an individual distillery. Curiously, a single malt can be a blend, but just of other single malts from the same distillery. Johnnie Walker, a dapper grocer and teetotaler in Kilmarnock, Scotland, began selling malt and grain whiskeys in 1820. The 1860 Spirits Act permitted his son and grandson to blend the two together for a lighter, more approachable drink and shipped it in square bottles to save space. It was not until 1963 that Glenfiddich, a single malt, was marketed outside of Scotland, supporting the notion that it is an acquired taste. A smoky single malt, such as from the isle of Islay, is produced by placing dried, toasted malt on a perforated wooden floor and smoked from below with local peat.

## Malt and Me

The eleven-verse old English nursery rhyme “The House that Jack Built” attests to malt as commonplace: “/This is the rat/ That ate the malt/That lay in the house that Jack built,” etc. (please send in your oral renditions!). From cooling, filling malted milk shakes to warming single malts. Malt and me. Shaken and stirred.

