

Barley Contributions to Beer Flavor Project Timeline
Support provided by The Flavor-Pack of Craft Brewers and Brewers Association (in italics)

Year	2012	2013	2014	2015	2016	2017 All pre-implementation/in process.
Activities	World Core: search for beer flavor in most exotic barley possible.	World Core Subset: focus on fewer barleys with most unusual flavors. Grown at 3 locations.	Full Pint, Klages, Copeland larger malts and brews – sensory. Flavor Pack and other donors fund Barley World Malt House renovations.	Oregon Promise Oregon Promise population (Golden Promise x Full Pint). Grown at 3 locations. Micro-malt, nano-brew, sensory, and GC-MS <i>Barley World Malt House upgrades and operations</i>		Selected Oregon Promises - Larger malts, brews, and sensory. Analytes associated with barley contributions to beer flavor. New germplasm: Romp of Otters (Maris Otter crosses); Bed of Violets (Violetta crosses). Flavor Fields Forever experiment. <i>Higher resolution mapping of flavor genes in Oregon Promise. Nano-brew and sensory of World Core Subset.</i>
Outcomes	World Core malts, malt analysis; wort sensory and analytics.	World Core Subset malts; malt analyses; wort sensory and analytics.	Beer sensory at Barley Improvement Conference, Oregon State University Fermentation Science.	Established protocols for assessing flavor on large number of samples. Malt House equipped and operational.		In process, thanks to you.
Milestones	Identified Full Pint as having unique flavors. Recognized need for beer sensory.	Recognized need for assessing flavor using beer and setting a baseline of flavor in beer made from more usual malts.	There are differences between the same beers made from different barleys. Recognized need for systematic sensory of more beers within a genetics framework.	There are significant differences between varieties for beer flavor attributes. Flavor differences have a genetic basis. Flavor genes mapped. Malt House repeatability studies and experimental malts in progress.		In process, thanks to you.
Communiqués	National Association of Plant Breeders Conf.	Craft Brewers Conf. Master Brewers Association Ann. Conf.	Master Brewers Association Reg. Conf.	Barley Improvement Conf. Master Brewers Association Ann. Conf. Farmer: Brewer Conf.	International Barley Genetics Symposium. World Brewing Conf.	Papers submitted on barley contributions to beer flavor; effects of malt modification on flavor; analytes associated with barley contributions to beer flavor.

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