

Roasted Barley Tea

A First Report from Barley World

The Barley Project at Oregon State University

Looking for a healthy and tasty beverage with no caffeine or alcohol? Hot or cold, roasted barley tea could be the answer. For thousands of years a staple in Asia (maicha, mugicha, and boricha in Chinese, Japanese, and Korean, respectively), it is both satisfying and reported to be healthful (1). It is available as whole roasted grain, ground grain in tea bags, and as a bottled drink.



Examples of commercially available roasted barley teas.

Roasted barley tea is finding its way to the West. It is usually available in stores specializing in Asian foods, or in the Asian foods section of supermarkets, but if you can't locate a local source, it is readily available online (2).

If you grow your own barley, it is worth experimenting with different varieties in order to discover their unique flavors, aromas, and colors. That's how we got started with roasted barley tea. Having discovered that barley can contribute to beer flavor (3) we asked "what contributions might barley make to other beverages?" Roasted barley tea was a logical starting point, especially for our naked barley breeding program (4). Much of the roasted barley tea available commercially is made from covered barley, but naked barleys are renowned for making a premium product.



Examples of covered and naked barley. From left to right, Full Pint, Buck, and BB99.

The first step in our quest for assessing barley contributions to roasted barley tea flavor was to develop a protocol for making roasted barley. You can source naked or pearled barley from a bulk bin at your local natural food store for roasting. There are a number of websites providing instructions for stovetop roasting (5), but being a research project, we wanted a repeatable protocol that would allow us to compare varieties. We therefore invested in a small coffee-roaster – the Gene Café CBR-101 (MSRP = \$585). The machine is easy to operate and allows for choosing a range of roasting temperatures and times. However, we quickly discovered that the screens separating the roasting chamber from the air intake and outlet have too large a slot size for barley. The first solution to this problem was to fractionate the barley by size – but this is time consuming and uses specialized equipment. Most importantly, because varieties differ markedly in seed size, sizing the barley before roasting limited the number of varieties that can be tested with this device. As a short-term solution, a local metalworker fabricated stainless steel mesh screens, allowing us to experiment with different varieties. A longer-term solution for our research program is purchase of a device such as the Dainichi Cafe Pro 101 MR-101 (MSRP = \$1,394), recommended by our roasted barley tea sensei, Dr. Kazuhiro Sato (Research Institute for Bioresources, Okayama University).

Using the Gene Café, we followed the roasting and preparation protocols provided by Dr. Sato.

Roasting: 245⁰ C for six minutes, 180⁰ C for nine minutes, and 240⁰ C for 11 minutes.



Examples of roasted barley. From left to right, commercial product, Buck, and BB99.

Tea preparation: Boil 50 grams roasted whole grain in 1 liter of water for 15 minutes; pour the tea through a strainer to separate the liquid from the boiled grains. We also explored grinding roasted grain and using tea filters. We used a grain amount/tea bag and steeping time recommended for a commercial product: 10.5 grams of roasted grain were ground for seven seconds in a coffee grinder and steeped in 2 liters of hot water for five minutes.



Examples of roasted barley teas. From left to right, commercial product, Buck, and BB99.

Do roasted barley teas prepared from different barleys have different sensory properties? Based on our very preliminary assessments, the unequivocal answer is “yes”. Preferences, as you might expect, differ. For now, we’re favoring chilled tea made from roasted whole grain Buck. The

ground grain tea bags were usually described as too weak compared to the boiled grain teas. However, there are those who favor hot tea, teas made from BB99, or teas prepared from commercial products. We are in the process of creating a lexicon of flavors for roasted barley teas, training a sensory panel, and preparing teas from more varieties. So stay tuned, have a roasted barley tea, and discover a new way to say cheers!

Resources:

- (1) For example, see https://www.jstage.jst.go.jp/article/jnsv1973/48/2/48_2_165/_pdf/-char/en and references cited therein. Verified December 29, 2017.
- (2) For example, a search Amazon for “roasted barley tea” on December 29, 2017 revealed a litany of options.
- (3) <https://www.asbcnet.org/publications/journal/vol/2017/Documents/ASBCJ-2017-4860-01.pdf>
- (4) <http://barleyworld.org/malting-eating-and-feeding-naked-grain>
- (5) For example, a Google search on December 29, 2017 revealed a long list of promising resources for making roasted barley tea, including the verified <http://www.thirstyfortea.com/recipes/korean-barley-tea/>

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