

## Strange Beer

### A Gluten-free Voyage on the Black Pearl

By Bob Peak

A few years ago, I put together my first gluten-free beer recipe based on sorghum syrup (see *Gaijin Geisha* on p. 14 of this catalog). Over the years, it has been well received by brewers who were avoiding gluten in their own diets and those who wanted to brew something along those lines for a friend or relative. After a while, though, the question started coming in, “I like that lager, but do you have a recipe for anything darker or richer?”

Now, when a brewer sets out to design a rich, dark, brown ale, specialty malts are the answer. British brown malt, black patent malt, German Carafa malt, William Crisp Chocolate malt—wonderful contributors of color and flavor. Unfortunately, since all of them start as barley, they all contain gluten, so I couldn’t use any of them. In a similar manner, all sorghum beers share a certain cidery, winy character that many find pleasant—but it is exactly the opposite of rich and round. Where to turn?



I had heard that buckwheat (groats) is not only not wheat, it is not even the seed of a grass like the traditional cereal grains. It does not contain gluten, but is rich in starch, playing a role in cuisine from Korea to Belgium. With this pseudo cereal, I might have a substitute for some of those barley malts I couldn’t use. To make it darker, I could try home toasting, as Byron Burch has been doing with barley malt for years. Of course, unless I wanted to try home malting (I didn’t) I would have to find some other way of converting the buckwheat starches into fermentable sugars. Fortunately, we sell a rice-grown koji enzyme that is used to convert starches for sake production—but will work on any food starch.

Finally, I decided to boost my brown-ale profile with all the gluten-free goodies I could think of while strictly avoiding barley malt. Cocoa is naturally gluten free, so I put in six ounces of *Scharffen Berger* unsweetened cocoa. All sugar beets and sugar cane are also gluten free and produce highly fermentable wort. To take advantage of that, plus some dark color, I decided to add a pound of *Belgian Dark Candi* syrup derived from sugar beets.

To get started, I bought a pound of whole buckwheat (groats) and took them home for toasting (see recipe, below). Whirling them with some mash water in a blender took the place of conventional grinding, because I did not want to put them through the malt grinder at *The Beverage People* and get them cross-contaminated with barley. After mashing with the koji, everything else went together like a conventional partial-mash beer, with a somewhat strange list of ingredients. Boiling, cooling, and fermentation were perfectly ordinary. I used a dry yeast strain because the dry yeasts are grown by the producer on molasses—which is gluten free—rather than on conventional beer wort like the liquid yeasts.

So how was the beer? I tried it out on an unsuspecting crowd at the first annual *Cloverdale Beer Festival*. Just about everyone found it tolerable, and a few really liked it. Opinions ranged from my usual description (“a remarkably beer-like beverage”) to a highly enthusiastic, “that’s delicious; can I really make this at home?” So, if you’ve tried a light sorghum beer—or even if you haven’t—you may want to take your own voyage on the beer I call **Black Pearl Buckwheat Chocolate Brown!**

#### “Black Pearl” Buckwheat Chocolate Brown Ale

(Gluten Free) (5 gallons) (EX5)

- 6 lbs. White Sorghum Syrup
- 1 lb. Dry rice extract
- 1 lb. Dark (D2) Belgian Candi Syrup
- 4 oz. Dextrin powder
- 1 lb. Whole Buckwheat (groats), toasted (see below)
- ½ tsp. Koji concentrate powder
- 6 oz. Scharffen Berger cocoa powder
- ¼ tsp. Gypsum
- ¼ tsp. Calcium Chloride
- ½ tsp. Chalk
- 2 Tbsp. Irish Moss (15 min.)
- 1/2 oz. Perle Hop Pellets (60 min.) 18.2 IBU
- 1/2 oz. Perle Hop Pellets (30 min.) 6.3 IBU
- 3/4 oz. Cascade Hop Pellets (30 min.) 6.6 IBU
- 1 oz. Cascade Hop Pellets (5 min.) 4.4 IBU
- Water to 5 gallons (2 qts. set aside for minimash and 3 qts. for sparging)
- 3/4 cup Corn Sugar for Priming
- 1 Fermentis Safale 04 English Ale Yeast

Your whole buckwheat may be labeled something like “Buckwheat (groats) lightly toasted.” The kernels will be off-white to light tan. For this beer, we want them toasty and brown. Spread the groats on a dry cookie sheet and toast in the oven at 325 deg. F for 25 minutes, stirring from time to time. Cool. Working in batches, whirl toasted buckwheat in a blender briefly with some of your 2 qts. of minimash water—just long enough to crack the grain. Put cracked grain and water, plus any remaining water of your 2 qts., into a small pot. Heat to 122 deg. F and stir in ½ tsp. Koji powder. Cover and let stand 30 min.

Add brewing water to kettle and begin heating. Meanwhile, heat your reserved sparge water in another pot or teakettle to 170 deg. F. Pour buckwheat mash into a collander over your brew kettle. Rinse with the 3 qts. of hot water. Begin boil, adding hops as indicated. Add remaining ingredients except cocoa and priming sugar. Boil 55 minutes, add cocoa and last hop addition. Boil 5 minutes more.

**SG 1.066 - IBU 35.5**

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