

Gluten-free beer from Witkop teff grains

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For celiac patients and others on gluten-free diets, it seems like gluten is everywhere—cakes, cookies and breads. It's even in most beers. But now, one team reports in the *Journal of Agricultural and Food Chemistry* that beers made with *Witkop* teff grains may be a good alternative to traditionally brewed barley beers.

Gluten based sensitivities impact millions of people each year, leading to a dramatic rise in gluten-free food products on grocery store shelves. According to the Celiac Disease Foundation, one percent of the global population has celiac disease, which results in the immune system attacking the [small intestine](#) when gluten is consumed. Currently, no medicinal treatments are available, and the only option is to follow a strict, [gluten-free diet](#). As a result, breweries have been exploring alternative grains, such as corn, rice and buckwheat, to replace [barley](#) in the malting and brewing process. Teff, a small cereal native to Ethiopia that doesn't contain gluten, is another possibility that researchers have tested. Now, Valeria Sileoni and colleagues wanted to examine, for the first time, the potential of a variety of teff called *Witkop* as a raw material for malting and brewing.

The researchers examined the *Witkop* teff malting process, in which grains are steeped, germinated and dried, to determine the optimum conditions. *Witkop* teff took longer to malt than barley, and the team found that the teff had different enzymes to break down sugars than barley. The researchers concluded that *Witkop* teff grains have potential as a raw material for beer production but would likely require custom malting equipment on an industrial scale.

More information: Lidia Di Ghionno et al. Gluten-Free Sources of Fermentable Extract: Effect of Temperature and Germination Time on Quality Attributes of Teff [(zucc.) Trotter] Malt and Wort, *Journal of Agricultural and Food Chemistry* (2017). [DOI: 10.1021/acs.jafc.7b01717](https://doi.org/10.1021/acs.jafc.7b01717)

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