An initial targeted analysis of key aroma compounds found in barley and sorghum beers

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An increase in the consumer demand and the availability of gluten-free products has led to several brewers to investigate brewing with grains other than barley. The primary grain of choice has been sorghum. These new gluten-free beers have unique flavor and aroma, which previous research has shown is the results for differences in concentration of a range of key chemical compounds. This study includes the initial results of six compounds that are known to impact beer flavor. A series of brews were done using either barley or sorghum malt extract and the concentrations of the six compounds were determined using Solid Phase Microextraction with Gas Chromatography and Mass Spectral detection. The compounds selected contain both pleasant and unpleasant flavor attributes. In addition, the impact of four important craft brewing yeast strains is investigated.