An investigation into the performance of Brewer's Yeast, *Saccharomyces cerevisiae,* in alcohol production at various specific gravities and when supplemented with either dextrose or sucrose

Alcohol production requires an in-depth understanding of yeast cultures and their responses to a variety of factors when attempting to optimize the fermentation process and prevent monetary losses. There are several factors related to the efficiency fermentation: the specific gravity of the wort, temperature, pH, FAN, sugar type, and yeast strain. In this study, the performance of *Saccharomyces cerevisiae* at varying specific gravities and its utilization of dextrose or sucrose is investigated. Differences between alcohol productivity and fermentability of the wort when using *Saccharomyces cerevisiae* with either sugar were nonsignificant, although a minor increase when supplemented with dextrose over sucrose was observed. Whether or not certain specific gravities or sugars induced impaired fermentation processes was of particular interest, with no indications that either specific gravity or sugar concentration were causative factors. This study provides insight into the responses of *Saccharomyces cerevisiae* with respect to relevant factors during the fermentation process.

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