

TITLE: COMPARATIVE ANALYSIS OF THE USE OF DISTINCT STRAINS OF YEAST IN THE PRODUCTION OF ARTISAN ALTBIER STYLE BEER

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ABSTRACT

Artisan brewing has been exploring ways to get new products and attract new consumers. The main way used is by creating recipes or changing known ones, diversifying the sensorial characteristics of these recipes. One of the means used for the development of products is the alteration of the yeasts used, changing the chemical compounds of final flavor and aroma (esters, phenols, etc.), as well as the attenuation of the sugars and, at the end, the body of the beers. This paper aims at comparing the attenuation capacity of two strains of *Saccharomyces cerevisiae* yeast, inoculated in brewer's wort to produce altbier style beer. For the production of means of the sample culture, recipes and procedures were followed according to the literature, using malts from Munich, Vienna, Cara Ruby, Wheat Blanc and Chocolate from Chateau and Pilsen, from the Globalmalt, as well as the hops from Hallertau Mittelfrüh and Spalter Select, of the Bart Haas Group. The yeasts used were SafAle K-97 and SafAle US-05 from Fermentis company. Once the wort was ready, with a density equivalent to 10.4 ° P, it was divided into different identified fermenters, inoculated one strain in each and placed in a place with a mean temperature of 20 ° C until the sugar attenuation had been stabilized, after 10 days, with daily monitoring, through the use of graduated hydrometer. The yeast K-97, of German origin, presented on the first day 6.4 ° P, going to 5,2 ° P, 4 ° P, 3,1 ° P for three days and 2,9 ° P, at which time the attenuation is over. The American yeast US-05, in turn, presented attenuations of 10.2 ° P, 7.5 ° P, 5 ° P, 3.7 ° P, 2.9 ° P for two days and at the end 2.7 ° P. Attenuation of the yeast K-97 was shown to be more intense than that of the yeast US-05, as observed in the reduction of the density on the very first day, maintained during the fermentation until the fifth day, when both stabilized. The fermentation resulted in beers with distinct sensorial profiles in aroma and flavor and, due to the evident attenuation resulting from the use of the K-97 yeast, the final product obtained presents drier taste when compared to that obtained with the use of yeast US-05, as well as offers a diverse range of esters and phenols, resulting in less spicy or fruity beers. With this, it is possible to demonstrate useful production practices for product differentiation, usually employed in the artisanal production of beers.

KEY WORDS: yeast, craft brewing, beer, attenuation