



UTICAJ PRIMENE PROBIOTSKOG KVASCA NA TOK FERMENTACIJE PIVSKE SLADOVINE

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Sažetak:

Primena probiotičkih mikroorganizama u prehrambenoj industriji postaje sve značajnija zbog njihovih brojnih blagotvornih efekata na ljudsko zdravlje, uključujući potencijal za unapređenje funkcionalnih karakteristika proizvoda. U ovom istraživanju ispitan je uticaj probiotičkog kvasca *Saccharomyces cerevisiae* var. *boulardii* na proces fermentacije pивske sladovine, pri čemu je ovaj kvasac upoređen sa tradicionalnim pivskim kvascima, kao što je *Saccharomyces cerevisiae* (AEB®, Italija). Sladovina korišćena u eksperimentu potiče iz standardne industrijske proizvodnje, dok je fermentacija sprovedena u strogo kontrolisanim laboratorijskim uslovima. Praćenje rasta mikroorganizama tokom fermentacije izvršeno je primenom standardnih mikrobioloških tehnika, dok su fizičko-hemijske karakteristike, uključujući gustinu, pH vrednost i koncentraciju ekstrakta, mereni tokom ključnih faza procesa. Dobijeni nalazi otvaraju mogućnosti za razvoj inovativnih funkcionalnih piva sa probiotičkim svojstvima, što bi moglo unaprediti nutritivne vrednosti i tržišnu privlačnost proizvoda.

Ključne reči: probiotički kvasac, pivski kvasac, fermentacija, sladovina, funkcionalna hrana



EFFECTS OF PROBIOTIC YEAST APPLICATION ON THE FERMENTATION OF WORT

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Summary:

The application of probiotic microorganisms in the food industry is becoming increasingly significant due to their numerous beneficial effects on human health, including the potential to enhance the functional characteristics of products. In this study, the impact of the probiotic yeast *Saccharomyces cerevisiae* var. *boulardii* on the fermentation process of beer wort was examined, with this yeast being compared to traditional brewing yeasts such as *Saccharomyces cerevisiae* (AEB®, Italy). The wort used in the experiment originated from standard industrial production, while fermentation was carried out under strictly controlled laboratory conditions. The growth of microorganisms during fermentation was monitored using standard microbiological techniques, and physicochemical characteristics, including density, pH value, and extract concentration, were measured during key phases of the process. The obtained findings open up possibilities for the development of innovative functional beers with probiotic properties, which could enhance the nutritional value and market appeal of the product.

Keywords: probiotic yeast, brewer's yeast, fermentation, wort, functional food.

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