NATIVE TRITICALE AS A STAND-IN FOR BARLEY MALT

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ABSTRACT

The average beer contains over 450 different substances, all of which have the potential to affect its quality, making beer one of the world's most complex beverages. Beer is typically made from water, barley malt, hops, and yeast. While malted barley is the most commonly used cereal grain in traditional brewing processes, more than 80% of global beer production incorporates adjuncts as a cost-effective and environmentally friendly option.

One of the main drawbacks of brewing with unmalted adjuncts is the decrease in amylolytic, cytolytic, and proteolytic enzymatic activities in the grist, as these enzyme systems are typically synthesized during the malting process. However, triticale, the first man-made cereal resulting from a cross between wheat and rye, presents an exception. Triticale can be used as a partial substitute for barley malt and exhibits promising brewing properties due to its high levels of amylolytic and proteolytic enzyme activity, even in its unmalted form.

The objective of this study was to evaluate the possibility of triticale application as a partial substitute for barley malt in beer production. The obtained results indicate that native triticale has good technological parameters and could be used as a partial substitute for barley malt in beer production.

Keywords: Triticale, Barley, Brewing Technology

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