

## **ETHANOL PRODUCTION FROM SUGARCANE BAGASSE HEMICELLULOSIC HYDROLYSATE**

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The objective of this research was evaluate the ethanol production by xylose-fermenting yeasts, using as substrate hemicellulosic hydrolysate from sugarcane bagasse. Two experiments were conducted, in a 2 x 3 factorial as a completely randomized design. Treatments corresponded to the musts (sugarcane bagasse hemicellulosic hydrolysate and sintetic must) and three yeasts strains (CG, J10 and J19.1). Analyses were performed in four replications. In the first experiment, original hydrolysate, obtained after hydrolyse of the hemicellulosic fraction from sugarcane bagasse and in the second, the concentrate hydrolysate (with high sugars concentration) were used. Sugars consumption, ethanol and acetic acid production and yeast viability and buds rate. Results shown that the three yeasts strains produce ethanol from xylose metabolism, and J10 strain presents high ethanol yield. Also, there was acid acetic production during fermentations process when hydrolysate was used as a must. Cellular viability and bud rates were not affected by treatments.

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**KEYWORDS:** Bagasse Hydrolisys, Ethanolic Fermentation, Xylose

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