

TITLE: FERMENTATIVE PROFILE OF YEASTS ISOLATED OF VEGETABLE DEBRIS IN THE MUNICIPALITY OF CANTÁ/RR

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Among the studied microorganisms about the ethanol production, *Saccharomyces cerevisiae* is the main yeast used in large scale, due its capacity of ferment a vast gamma of carbohydrates and assimilate stress conditions used in industries, such as high temperatures and anaerobic conditions. For the efficient ferment process, is necessary the sugar conversion in alcohol and carbonic gas for this fermentative microorganisms. Therefore, the study aimed to investigate the fermentative process of 45 yeasts isolated from organic compounds found in an area on the ground of the municipality of Cantá/RR. For the fermentative tests, was used the basal medium for fermentation – MBF (yeast extract 1%, peptone 2%) supplemented with 2% of each tested sugar: glucose, galactose, maltose, xylose and fructose. The pre-inoculum was standardized using the MacFarland scale 2,0. The fermentations were performed in test tubes containing inverted Durhan tube, which were incubated at 120 rpm in Shaker in a temperature of 28°C. The growth was denoted for the turbidity of the medium, while the fermentation through the production of the gas in the interior of the Durhan tubes. The analyze of the results were made in the 1^o, 2^o, 3^o, 5^o, 7^o, 14^o and 21^o day after the inoculation. At the end of the observations, 28 yeasts fermented glucose, and the yeasts of number 3, 16, 20, 21 fermented maltose, sucrose, xylose and fructose, respectively. In the 24 hours, xylose was fermented by seven tested yeasts. Three yeasts fermented all the carbon sources that were tested, demonstrating high fermentative potential. The sugar fermentation of these sugars indicated that wild yeasts can be used in processes with important industrial application. The results showed that most of the strains presented fermentative activity after 24 hours, with the passage of time most assimilated much of the sugars tested. It was observed that most of the yeasts assimilate xylose in the first days of fermentation, this sugar is found in the hemicelluloses of the lignocellulosic biomass being converted to xylitol, with important industrial application.

Keywords: Carbohydrates, vegetable debris, alcoholic fermentation, unicellular fungus, Roraima.

Development Agency: CNPq