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P80

MORPHOLOGICAL ANALYSIS OF YEASTS BIOPROSPECTED FROM THE BRAZILIAN SAVANNAH

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Abstract

The Brazilian Midwest Region has emerged due to its large biotechnological potential. The savannah is the predominant vegetation in the region and is recognized for its great microbial diversity. However it has been marginally studied so far and the on this aspect it can be said that remains still unexplored. The aim of this work was to evaluate 44 yeast strains isolated from exotic fruits found in the Brazilian savannah. In micro-morphological analysis, isolates were grown in YPD medium at 30°C for 24h and then subjected to microscopic visualization, where were analyzed the format, the presence of budding and the cell sizes compared. For the macro-morphological analysis, isolates were plated on YPD agar by exhaustion, incubated at 30°C for 72h and then performed the analysis of the formed colonies, considering the following parameters: pigmentation, border, texture, and comparison of the convexity of the colonies. Colonies were classified by similarity into five main groups, which the most important features were: group A-cell format elongated, with the presence of budding, white pigmentation, regular edges, smooth/opaque texture; group B-cell format oval, with the presence of budding, white pigmentation, regular edges, smooth/opaque texture; group C-cell format round; with the presence of budding, white pigmentation, regular edges, smooth/opaque texture; group D-with the presence of budding, smooth/opaque texture; and group E-with the presence of budding, jagged edge, wrinkled/opaque texture. The obtained groups were utilized to compare with results from molecular and biochemical tests. Morphology presented a good correlation with these other tools for microorganisms' identification. Further studies are necessary to identify potential biotechnological applications for the yeasts
