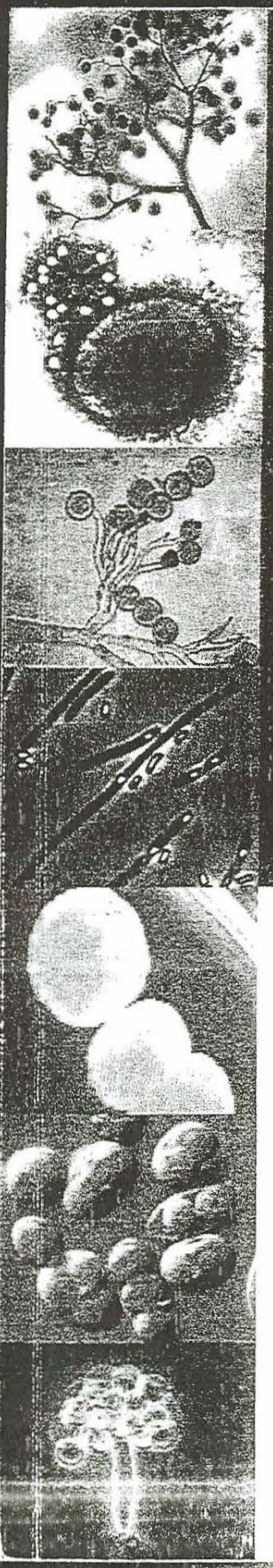

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BEHAVIOR OF ISOLATED YEASTS OF HONEY

Calhelha, R.*, J. Marques, and L. Estevinho

Laboratory of Microbiology, Departament of Biology, Escola Superior Agrária, Instituto Politécnico de Bragança, 5300 Bragança

*Corresponding author: calhelha@portugal.mail.pt

The yeasts of 200 aleatory samples of honey from Trás-os-Montes were isolated and identified by traditional and molecular methods.
The identification by molecular methods was performed with NL_1 and NL_2 primers to amplify D_1/D_2 area of the gene 26 rRNA.
This study evaluates the capacity of the yeasts isolated in higher quantities (*Zygosaccharomyces rouxii* ESA20, *Candida krusei* ESA11, *Candida magnoliae* ESA17, *Rhodoturula mucilaginosa* ESA19 and *Cryptococcus humicolus* ESA51) to use acid *p*-hidroxybenzoic as the only source of carbon and energy. The results show that all the tested yeasts have the capacity to use the acid as the only source of carbon and energy, except for the *Saccharomyces cerevisiae*, and that the *Cryptococcus humicolus* presents the higher efficiency.
The effect of sugar concentration (2 and 40%, p/v) on the growth of the isolated yeasts of honey, at different temperatures (20, 25, 30, 35, 40 and 45°C) with pH 4.0 is also assessed. For both sugar concentrations and for all the tested temperatures, the specific rate of growth of *Saccharomyces cerevisiae* is higher than those of the isolated yeasts of honey. However, the best temperature of growth was 30°C for *Saccharomyces cerevisiae* and 35°C for all the yeasts isolated from honey in ESAB. The results also show that the specific rates of growth of the studied yeasts were lower when the cells grew with 2% (p/v) of glucose.
The assessment of pH effect (3.5; 4.0; 4.5; 5.0 and 5.5) on the specific rate of growth is added to find out that, among the yeasts under study, the ancestry *Cryptococcus humicolus* ESA51 is the most sensitive, and the *Rhodoturula mucilaginosa* ESA19 the most resistant.