

# HOMEOPATHY ON CULTURES OF SACCHAROMYCES CEREVISIAE AND IMPACT ON FERMENTATION

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## RESUMO

**INTRODUCTION:** Studies have shown that homeopathy modulates the activity of both single and multi-celled organisms; therefore, we propose a study into the action of Arnica Montana and *S. cerevisiae* fungus nosode on growth “in vitro”, and on the fermentation of *S. cerevisiae* on brewer’s wort. **METHOD:** 250 µL of medication in 30% alcohol were placed in 5 mL of Sabouraud Broth (SB) or wort, with 20 µL of fungus at a McFarland standard of 0.5 and in a dilution of 1:100. Fungal growth was evaluated via spectrophotometry at 600 nm or a cell count in a Neubauer chamber in a kinetic of 1 to 5 days’ incubation at 25°C. The production of alcohol by the fungus was evaluated using the BRIX index in the same kinetic. 1x10<sup>7</sup> fungi/mL were previously incubated with medication for 5 days and, afterwards, placed in 20 mL of fresh wort, incubated at 25°C for 7 days and evaluated for growth and sugar consumption. **RESULTS and DISCUSSION:** The SB results revealed that after 2 days incubation with Arnica 30CH, an increase in fungal growth was observed ( $p < 0.0001$ ), while with nosode 6 and 30CH there was a reduction in growth after 2 and 5 days incubation ( $p < 0.001$ ). The fungi incubated with Arnica 30CH exhibited increased sugar consumption after 2 and 5 days incubation ( $p < 0.05$ ), while the nosode 30CH resulted in lower sugar consumption after 2 and 3 days incubation ( $p < 0.05$ ). The results for fungal growth and sugar consumption with the wort were similar to those using SB. The fungal cultures previously incubated with homeopathic medication and subsequent incubation with fresh wort indicated a loss of distinction, both in terms of fungal growth and sugar consumption. This piece of data may suggest action by the homeopathic medication only when in contact with the cells. **CONCLUSION:** The treatment of the *S. cerevisiae* fungus using Arnica and the *S. cerevisiae* nosode produced a significant modulation in fungal growth and sugar consumption.

**PALAVRAS-CHAVE:** Homeopathy, *Saccharomyces cerevisiae* “in vitro”, fermentation

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