

## **Evaluation of the antimicrobial activity of oregano essential oil in different concentrations against microorganisms present by natural contamination of sliced mozzarella cheese**

*Ilana Racowski*

*Termomecnica Technology College, Brazil*

Evaluation of the antimicrobial activity of oregano essential oil in different concentrations against microorganisms present by natural contamination of sliced mozzarella cheese: Increasingly, natural substances that can act on microorganisms are being studied, delaying their development in order to replace or reduce the use of synthetic preservatives, since some of these substances can be aggressive to humans and the environment. In this way, the present work had the objective to evaluate the antimicrobial power of the essential oil of oregano, in front of deteriorating fungi of the genus *Aspergillus* sp. (A) and *Penicillium* sp. (B) isolated by sowing technique on surface of apparent contamination of sliced mozzarella cheese. To verify the analysis of the antimicrobial power of oregano oil at concentrations of 1:10; 1: 100; 1: 1000; 1: 10000; 1: 100000 and pure the agar diffusion methodology was used using PDA (Potato Dextrose Agar) as the culture medium in the Petri dishes and as the growth control the addition of sterile distilled water. With the result it was possible to notice that for the microorganisms A and B the pure oil and its dilution of 1:10 exert antimicrobial power obtaining a final PGI (Percent of Growth Inhibition) of 100% of Growth Inhibition and 77,23% respectively for the microorganism B the PGI values were 100% and 70.69%.

### **Biography**

Ilana Racowski has a background in Food Engineering, with Masters and PhD degree in Food Microbiology and Genetics at the University of São Paulo (USP). She has been working as a Professor and Researcher in this area for 17 years, with publications in the area of natural antimicrobials for both bacteria and fungi, where her research area is also concentrated. Today, she is a professor of food microbiology and a researcher at the Termomecnica Technology College (FTT) in the Food Engineering course. In addition to the Microbiology Area, she has a degree in Administration, where she also has Lacto Senso and MBA postgraduate courses.