Antimicrobial activity of plant extracts and essential oils against *Staphylococcus aureus, Bacillus cereus, Escherichia coli* and *Candida albicans*.


Requirements of the consumers induces the food industry to search alternatives to conservation their products, using conservants, such as condiments, that provide greater durability of the product. This study evaluated the antimicrobial activity of ethanolic extracts (EE) and hexanic extracts (HE), as well as essential oils (EO) of *Rosmarinus officinalis, Mentha spicata, Zingiber officinale, Piper nigrum* and *Capsicum baccatum* against *Staphylococcus aureus, Bacillus cereus, Escherichia coli* and *Candida albicans*. The plant extracts were obtained by maceration in organic solvents and the essential oils by hydrodistillation in Clevenger. The antimicrobial activity of extracts and EO, in concentration of 500µg/mL, was tested by the modified method of agar in plate with modified hole. *S. aureus* was sensitive to all extracts and for the EO of *R. officinalis* and *M. spicata*; EE of *C. baccatum* and *P. nigrum*. The OE of *Z. officinale* (500µ/mL) completely inhibited the growth of the *B. cereus*, the same results were observed to *R. officinalis* and *M. spicata*, *P. nigrum* and *C. baccatum*. This microorganism was also sensitive to EE and HE of *Z. officinale*. Only the EO of *R. officinalis*, *M. spicata* and *Z. officinale* were effective against *E. coli*. The OE and all extracts of *M. spicata*; OE of *R. officinalis*, *Z. officinale*; HE of *P. nigrum* and *C. baccatum* completely inhibited the growth of *C. albicans*. The condiments analyzed showed antimicrobial activity against bacteria and yeast, suggesting that is possible to use natural extracts and oils as an alternative to the food industry for replacing synthetic preservatives.