

**Extraction of tulsi, Clove & Guava and Synthesis of extraction loaded sodium alginate /gum acacia composite film with antibacterial activity**

**A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF**

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## 1. ABSTRACT:

The antimicrobial activity of the different leaf extracts of Tulsi (*Ocimum tenuiflorum*), also known as *Ocimum sanctum*, against one human pathogen *Escherichia coli*, of dried leaf of *O. tensanctum* were tested against three human pathogen strains such as *Escherichia coli*, *Candida albicans* through the well diffusion and the poison plate method. The antibacterial properties of "*Syzygium aromaticum*" commonly known as "Clove" tested against food borne pathogens, (*E. coli*). Agar diffusion susceptibility test revealed inhibition zone of clove sample. Compare to menthol extract was showing best result and *E. coli*. the antimicrobial potential of guava (*Psidium guajava*) leaf extracts against (*Escherichia coli*) and which are some of food borne and spoilage bacteria the guava leaves were extracted menthol. The main objective of this investigation is to develop sodium alginate-gum acacia composite film the formation of UV-vis spectroscopy (UV-Vis), Fourier transform infrared spectroscopy (FTIR), These sodium alginate/gum Arabic film have good potential to be used as delivery vehicle for protein drugs.

