World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:9, No:01, 2015

Chemical Composition and Antibacterial Activity of Ceratonia siliqua L. Growing in Boumerdes, Algeria

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Abstract : This work is a contribution to the knowledge of physicochemical characteristics of mature carob followed by evaluation of the activity, antimicrobial phenolics leaves and green pods of Ceratonia siliqua L. physicochemical study shows that mature carob it has a considerable content of sugar (50.90%), but poor in proteins (7%), fat (8%) and also has a high mineral content. The results obtained from phenolic extracts of leaves and green pods of Ceratonia siliqua L. show a wealth leaf phenolic extract especially flavonoids (0,545 mg EqQ/g) relative to the extract of green pods (0,226 mgEqQ/g). Polyphenols leaves have a slightly inhibitory effect on the growth of strains: Staphylococcus aureus, Escherichia coli, Klebsiella pneumoiae, Streptococcus sp and Sanmonella enteritidis, a strong inhibitory effect on the growth of Pseudomonas strain aerogenosa. Moreover, polyphenols pod have a slightly inhibitory effect on the growth of Streptococcus sp strains, Pseudomonas and aerogenosa Sanmonella enteritidis, a slightly inhibitory effect on the growth of Klebsiella pneumoniae strains, E. coli and Staphylococcus aureus.

Keywords : antimicrobial activity, bacteria, clove, Ceratonia siliqua, polyphenols
Conference Title : ICAB 2015 : International Conference on Agriculture and Biotechnology
Conference Location : Jeddah, Saudi Arabia
Conference Dates : January 26-27, 2015