MainPage
About College
Files
Researches
Courses
Favorite Links
Our Contacts

Research Details :

Research Title : *Studies on Juniperus excelsa and Rumex nervosus and their effects on some microorganisms*

دراسات على نبات العرعر ونبات العثرب وتأثيرها على بعض أنواع البكتريا والطفيليات

Descriptipn : This study discuses chemical and biological applications aspects for two plants grow in the Al-baha city, namely: Juniperus excelsa, Rumex nervosus. The chemical studies contain primary estimation for alimental and remedial values of the two plants leaves and their whole extracts and fractions, where the whole carbohydrates concentration stood at 4.19 ×10-5 mol/L in J. excelsa leaves, 3.2 ×10-5 mol/L in R. nervosus leaves. Using paper chromatography separation for whole ethanolic extracts of the two plants leaves, 4 monosaccharides were detected in J. excelsa extract, and 5 in R. nervosus extracts. And 4 protein amino acids were detected in J. excelsa extract, and 8 in R. nervosus extracts. The quantitative and qualitative estimation for macronutrients (Ca, P, Na and Mg) and micronutrients (Mn, Zn,Cu, and Fe) indicated that concentration of these elements in the plants leaves was less than the interdependent range of the elements in agricultural products. The phytochemical tests indicated that there are many secondary metabolisms in the plants leaves. The study also identified most monoterpenoides and sesquiterpenoides in the essential oils extracted by hydro-distillation from J. excelsa leaves and R. nervosus leaves under 2 conditions. Applicative aspects included studying the inhibitory activity against growth of five microorganisms contribute to wound infection either in direct or opportunistic manners, under effect of whole leaves extracts and fractions. Results revealed that the whole leaves extracts and fractions from J. excelsa leaves was found to possess medium antimicrobial activity against Staphylococcus aureus as well as the fractions extracted from R. nervosus leaves showed efficient antimicrobial activity particularly against Pseudomonas aeruginosa and Streptococcus pyogenes, while the polar extracts exhibited inhibitory effect against C. albicans. Also applicative studies indicated that the whole ethanolic extract of R. nervosus has antileishmanial activity. And Low Concentration Detected (LCD) was found 0.5 mg, and High Concentration Detected (HCD) was found 2mg. Also LD50 was detected as 0.95 mg.

Research Type : Master

Research Year : 2007

Publisher : King Abdulaziz University

Supervisor : أ.د/ حسن بن عبدالقادر البار . د/ عبدالقادر تنكل .د/هالة بنت سعيد سالم

Added Date : Monday, June 09, 2008