



Antifungal activity of *ziziphus sativa*



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**BS
IN
CHEMISTRY**

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SONIA TABASUM**

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SESSION: 2013-2017



DECLARATION

I SONIA TABASSUM D/O SHOUKAT ALI

ID: 13004067002, Session 2013-2017 hereby declare that the matter printed in the thesis titled “*Antifungal Activity of Ziziphus Sativa*” is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research institution etc. in Pakistan or Abroad.

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RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis titled, “**Antifungal Activity of *Zizphus sativa***”, has been carried out and completed by **SONIA TABASSUM, ID: 13004067002.**

The quantum and the quality of the work contained in this thesis are adequate for the award of Degree of BS in Chemistry.

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Dedication

Dedicated to ones who gave me life and grew me up. Those angels who were always formy supportive. I owe them each moments of life and praise them in each breath.

Dedicated to the most holy person, **Mother** and the Dearest person, **Father**.

This dissertation is dedicated to my beloved *parents*, *Sibling*, and *Friends* for all of their continued love and support

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There is a time when silence speaks so much more loudly than words of praise to only as good as belittle a person whose words do not express, but only put a veneer over true feelings, which are gratitude at this point of time”.

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Abstract

Ziziphus sativa is specie of *Ziziphus* that belongs to *FAM .Rhamnaceae*. *Ziziphus sativa* is a small tree.Jujube cultivated in china. It is growing more than 4,000 years. This tree cultivate all over the world.The fruit of *Ziziphus sativa* is very delicious. It is equally liked among younger and children. It has sweet taste. *Ziziphus sativa* is traditionally important plant for medical purpose. The antifungal activity of *Ziziphus sativa* was checked by disc agar diffusion method. *Ziziphus sativa* activity was checked against *Candida Albicans* and *Sacchromyces cerevisiae*. Four different solvent extracts were used to check the antifungal activity. Extract of plant in was ethyl acetate, chloroform, n-hexane and water were under study. All extract showed different effects against both strains. Ethyl acetate showed best results in both strains. 1% of ethyl acetate showed 25mm zone of inhibition against *Candida Albicans* and *Sacchromyces cerevisiae*. On the other hand n-hexane showed no results against both strains. So it is concluded that chloroform, n-hexane, ethyl acetate and water were all antifungal agents.



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1.INTRODUCTION

1.1.Penicillin Family

In 1928 penicillin was discovered. The penicillin is most valuable group of antibiotic. The family of penicillin is highly effective against bacteria. Penicillin antibiotics were first drug to be effective against many organisms. All penicillin's are β -lactamantibiotics. The various classes of penicillin used in primary care and clinical issues in women with penicillin allergy.