

ESTIMATION OF THE MEDICINAL VALUE OF  
*MELIA AZEDARACH* LINN.

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PAKISTAN  
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In the name of

**ALMIGHTY**

**ALLAH,**

The most Compassionate,  
The most merciful

## **DECLARATION**

I, **Tabassum Munir** D/O **Munir Hassan Khan ID: 13001140007** Session 2013-2015 hereby declare that the matter printed in the thesis titled “**ESTIMATION OF MEDICINAL VALUE OF MELIA AZEDARACH LINN.**” 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.

*Dated: ---/09/2015*

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# **RESEARCH COMPLETION CERTIFICATE**

Certified that the research work contained in this thesis titled, "**ESTIMATION OF MEDICINAL VALUE OF *MELIA AZEDARACH* LINN."** has been carried out and completed by **Tabassum Munir , ID:13001140007** The quantum and the quality of the work contained in this thesis is adequate for the award of Degree of MS/M.Phil.

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# DEDICATION

*“I dedicate my thesis work to my loving and caring husband alongwith my most respectable Teachers. I respect them from the core of my heart and am indebted to these people, as I would never have been able to complete my research work without their assistance, motivation and mentoring.”*

## **ACKNOWLEDGEMENT**

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## **ABSTRACT**

*Melia azedarach* (*M. azedarach*) L. is most versatile medicinal plants of meliaceae (mahogany) family which have great attraction for scholars. The presence of alkaloids, saponins, tannins and flavonoids in the leaves extracts proves its medicinal value. These compounds have pharmacological effects like analgesic, anticancer, antiviral and anti-malarial. Infectious diseases are main cause of deaths in Pakistan. With passage of time that bacterial strain has developed resistance to almost all the antibodies. Some antibodies have serious side effects which minimize their applications. There is a need to develop such

antimicrobial agent with more effectiveness and minimum side effects. It is reported that *M. azedarach* is a potential source of novel antibodies.

Its extracts have both antioxidant and antimicrobial activities. During the last two decades much more progress has been done of the chemistry, bioactivities of *M. azedarach* and its approach to medicine. It is widely distributed in Pakistan, so we must utilize its economical benefits as medicines.

These compounds are less toxic, potentially effective and economical. Powdered leaves of *M. azedarach* were extracted with methanol. The extracts showed good antibacterial. Three strains were used for testing antibacterial activity. One was gram negative i.e., *Escherichia coli* (ATCC # 25922) and *Bacillus thuringiensis* (Ref. # BL-Bt6), *Staphylococcus aureus* (ATCC # 6633) were gram-positive i.e.,

The maximum antibacterial activity is shown in methanol. As indicated by the maximum inhibition zone diameter the highest activity of methanol extract is obtained for *Staphylococcus aureus*, *Escherichia coli* and *Bacillus thuringiensis*. The results indicate that alcoholic extracts of *M. azedarach* L. could be an effective source of herbal medicines against infectious diseases.

## **CONTENTS**

### **Preface:**

### **Page No.**

### **Chapter # 1          Introduction**

1 – 22

#### **1.1.      Family meliaceae**

2

1.2.	Genus <i>Melia</i>	3
1.3.	<i>Melia azedarach</i> Linn:	4
1.4.	Botanical Description	8
1.5.	Environmental and other impacts	10
1.6.	Medicinal value of <i>Melia azedarach</i>	10
1.7.	Secondary Metabolites:	11
1.8.	Techniques	21
1.9.	Aims and Objectives	22

## **Chapter # 2 Literature Survey** 23 - 31

## **Chapter # 3 Experimental Work** 32 – 39

3.1.	Materials and methods	32
3.2.	Materials	35
3.3.	Procedure for extraction	36
3.4.	Thin Layer Chromatography	38
3.5.	Antibacterial activity	38-39

## **Chapter # 4 Results , Discussion and Conclusion** 40 - 48

4.1	Extraction of plant material	40
4.2	Photochemical analysis	40
4.3	Thin layer chromatography	42
4.4	Antibacterial activity	43
	Conclusion	48

## LIST OF FIGURES

**Preface:**

**Page No.**

Fig. 1 : Flowers Of *Melia azedarach* Linn

5

Fig. 2 : Fruits of *Melia azedarach* Linn

5

Fig. 3 : Leaves of *Melia azedarach* Linn

6

Fig. 4 : Structures of Meldenindiol and Melianol

14

Fig. 5 : Different structures of flavonoids	16
Fig. 6 : Antibacterial activity of extracts against <i>Bacillus thuringiensis</i>	44
Fig. 7 : Antibacterial activity of extracts against <i>Escherichia coli</i>	45
Fig. 8 : Antibacterial activity of extracts against <i>Staphylococcus aureus</i>	45
Fig. 9 : Zones of Inhibition of extracts against <i>Bacillus thuringiensis</i>	46
Fig.10: Zones of Inhibition of extracts against <i>Escherichia coli</i>	46
Fig. 11: Zones of Inhibition of extracts against <i>Staphylococcus aureus</i>	47

# **LIST OF TABLES**

## **Preface:**

## **Page No.**

Table 1: List of Apparatus	32
Table 2: List of Chemicals	33
Table 3: List of Instruments	34
Table 4: Phytochemical analysis of methanolic leaves extracts of <i>M.azedarach</i>	41
Table 5: Rf Values of the Fractions Obtained from <i>M. azedarach</i> using BAW	42
Table 6: Antibacterial activity of <i>M.azedarach</i> leaves in Agar diffusion Method	44

# **CHAPTER #1**

# **INTRODUCTION**

# **CHAPTER # 2**

# **LITERATURE SURVEY**



# **CHAPTER # 4**

# **RESULTS, DISCUSSION AND CONCLUSION**

# REFERENCES