

# TABLE OF CONTENTS

<b>ABSTRACT</b> .....	<b>I</b>
<b>RESUMEN</b> .....	<b>III</b>
<b>RESUM</b> .....	<b>V</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>VII</b>
<b>GENERAL INTRODUCTION</b> .....	<b>IX</b>
1. <b>THE PLANT IMMUNE SYSTEM</b> .....	<b>1</b>
1.1. <i>PTI: PAMP-Triggered Immunity</i> .....	<b>1</b>
1.2. <i>ETI: Effector-Triggered Immunity</i> .....	<b>2</b>
1.3. <i>Regulation of Stomatal Immunity</i> .....	<b>3</b>
<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000 as a stomatal immunity model system.....	<b>5</b>
2. <b>SECONDARY METABOLITES IN PLANT DEFENCE</b> .....	<b>6</b>
2.1. <i>Phenolic compounds</i> .....	<b>7</b>
2.1.1.    Salicylic acid .....	<b>7</b>
2.1.2.    Gentisic acid .....	<b>8</b>
2.2. <i>Volatile Organic Compounds (VOCs)</i> .....	<b>9</b>
2.2.1.    Green Leaf Volatiles (GLVs) .....	<b>9</b>
3. <b>USE OF ELICITORS AGAINST BIOTIC AND ABIOTIC STRESSES</b> .....	<b>11</b>
3.1. <i>Natural elicitors</i> .....	<b>11</b>
3.2. <i>Synthetic elicitors</i> .....	<b>12</b>
<b>OBJECTIVES</b> .....	<b>15</b>
<b>CHAPTER I</b> .....	<b>19</b>
LIST OF ABBREVIATIONS.....	<b>23</b>
ABSTRACT.....	<b>25</b>
1.    INTRODUCTION.....	<b>25</b>
2.    MATERIALS AND METHODS .....	<b>27</b>
3.    RESULTS .....	<b>33</b>
4.    DISCUSSION .....	<b>49</b>
5.    REFERENCES.....	<b>55</b>
SUPPLEMENTARY MATERIALS.....	<b>61</b>
<b>CHAPTER II</b> .....	<b>65</b>
LIST OF ABBREVIATIONS.....	<b>69</b>
ABSTRACT.....	<b>71</b>
1.    INTRODUCTION.....	<b>71</b>
2.    MATERIALS AND METHODS .....	<b>73</b>

3. RESULTS .....	78
4. DISCUSSION .....	92
5. REFERENCES.....	95
SUPPLEMENTARY MATERIALS .....	101
<b>CHAPTER III .....</b>	<b>107</b>
LIST OF ABBREVIATIONS.....	110
ABSTRACT.....	111
1. INTRODUCTION.....	111
2. MATERIALS AND METHODS .....	113
3. RESULTS .....	115
4. DISCUSSION .....	120
5. REFERENCES.....	123
SUPPLEMENTARY MATERIALS .....	127
<b>GENERAL DISCUSSION.....</b>	<b>131</b>
<b>GENERAL CONCLUSIONS.....</b>	<b>139</b>
<b>REFERENCES .....</b>	<b>145</b>
<b>ANNEX I</b>	
<b>ANNEX II</b>	