

## CONTENTS

<b>UNDERGRADUATE THESIS</b>	<b>ii</b>
<b>APPROVAL PAGE</b>	<b>iii</b>
<b>STATEMENT OF AUTHENTICITY OF RESEARCH</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT</b>	<b>v</b>
<b>CONTENTS</b>	<b>viii</b>
<b>LIST OF TABLES</b>	<b>xi</b>
<b>LIST OF FIGURES</b>	<b>xiii</b>
<b>LIST OF APPENDIX</b>	<b>xv</b>
<b>LIST OF SYMBOLS</b>	<b>xvi</b>
<b>ABSTRACT</b>	<b>xvii</b>
<b>CHAPTER I</b>	<b>1</b>
1.1. Background	1
1.2. Research Objectives	3
1.3. Benefits/Anticipated Outcomes	4
1.4. Hypothesis	4
<b>CHAPTER II</b>	<b>5</b>
2.1. Electrolyzed Water	5
2.1.1. History	5
2.1.2. Production	6
2.1.3. Types of EW-Producing Systems	8
2.1.4. Basic Properties of EW	9
2.1.5. Mechanism of Germicidal Action	13
2.1.6. Advantages and Disadvantages	15
2.2. Vase Life in Cut Rose Flower	16
2.2.1. Environmental Factors	16
2.2.2. Cutting and Conditioning Methods	22

2.2.3.	Test Room Conditions	24
2.2.4.	Vase Life Terminating Symptoms	26
2.3.	Strawberry Fruit	27
2.3.1.	Etiology of Gray Mold	27
2.3.2.	Symptoms and Signs of Gray Mold	28
2.3.3.	Disease Cycle of Gray Mold	31
<b>CHAPTER III</b>		<b>35</b>
3.1.	Place and Time of Experiment	35
3.2.	Materials	35
3.2.1.	Electrolyzed Water Applied in Various Methods (Spray, Dip and Dry Mist) and Various Concentrations on Cut Roses Flower	35
3.2.2.	Electrolyzed Water Applied in Different Varieties of Strawberry Fruit	36
3.2.3.	Electrolyzed Water Applied in Strawberry Fruit Covered with Food Plastic	36
3.2.4.	Electrolyzed Water Applied in Strawberry Fruit Covered with P-Plus Plastic	36
3.3.	Instruments	37
3.4.	Experimental Procedure	49
3.4.1.	Electrolyzed Water Applied in Various Methods (Spray, Dip and Dry Mist) and Various Concentrations on Cut Rose Flower	49
3.4.2.	Electrolyzed Water Applied in Different Varieties of Strawberry Fruit	54
3.4.3.	Electrolyzed Water Applied in Strawberry Fruit Covered with Food Plastic	55
3.4.4.	Electrolyzed Water Applied in Strawberry Fruit Covered with P-Plus Plastic	56
3.5.	Data Analysis	59
<b>CHAPTER IV</b>		<b>60</b>
4.1.	Electrolyzed Water Applied in Various Methods (Spray, Dip and Dry Mist) and Various Concentrations on Cut Rose Flower	60
4.1.1.	Measurement HClO Content in the Solution and Air	60
4.1.2.	Disease Observation	62
4.2.	Electrolyzed Water Applied in Different Varieties of Strawberry Fruit	66

4.3.	Electrolyzed Water Applied in Strawberry Fruit Covered with Food	
	Plastic	73
4.3.1.	Measurement HCIO in the Air	73
4.3.2.	Decay Observation	73
4.4.	Electrolyzed Water Applied in Strawberry Fruit Covered with P-Plus	
	Plastic	74
4.4.1.	Measurement HCIO in the Air	74
4.4.2.	Disease Observation	74
	<b>CHAPTER V</b>	<b>77</b>
	<b>REFERENCES</b>	<b>78</b>
	<b>APPENDIX</b>	<b>83</b>