

## CONTENTS

CHAPTER NO.	TITLE NO.	PAGE
	ACKNOWLEDGEMENTS	I
	LIST OF FIGURES AND TABLES	II
	ABBREVIATIONS	III
	INTRODUCTION	IV
I)	REVIEW OF LITERATURE	
1)	Introduction	1
2)	Taxonomic position	1
3)	Cultivated Species of <u>Sansevieria</u>	
4)	Morphology	3
5)	Propagation and Planting	4
6)	Ecological factors affecting growth	5
7)	Pests and Diseases	5
8)	Economic Importance	5
9)	Cytology	6
10)	Anatomical studies	7
11)	Physiological Studies	7
a)	Growth	7
b)	CAM	7
c)	Water Relation	13
d)	Temperature Tolerance	13
e)	Mineral Nutrition	14

CHAPTER NO.	TITLE	PAGE
NO.		

### II) MATERIAL AND METHODS

A)	PLANT MATERIAL	
i)	Cultivation of <u>Sansevieria</u> (In Pot Culture)	16
ii)	Sampling Method	16
B)	METHODS	
I)	Inorganic Constituents	
i)	Preparation of acid digest	17
ii)	Estimation of Sodium, Potassium, Calcium, Magnesium, Iron, Copper and Phosphate.	18
II)	Organic Constituents	
i)	Moisture percentage of leaf	19
ii)	Organic acid status <i>(Titrable Acid Number)</i>	19
iii)	Carbohydrates	20
iv)	Pigments - Chlorophylls	22
III)	Crassulacean Acid Metabolism Studies	
1)	Study of diurnal fluctuations in <i>Titrable Acid number (TAN)</i> during different seasons.	22
2)	Study of diurnal fluctuations in Carbohydrate during different seasons	23

CHAPTER NO.	TITLE NO.	PAGE
<b>III) RESULT AND DISCUSSION</b>		
A) INORGANIC CONSTITUENTS		
A)	Sodium	24
B)	Potassium	29
C)	Calcium	34
D)	Magnesium	40
E)	Iron	45
F)	Copper	49
G)	Phosphate	50
II) ORGANIC CONSTITUENTS		
a)	Moisture Percentage	52
b)	Titratable Acidity (TAN)	57
c)	Carbohydrates	62
d)	Pigments - Chlorophylls	71
III) CRASSULACEAN ACID METABOLISM STUDIES		
a)	Study of diurnal fluctuations in TAN values during different seasons	77
b)	Study of diurnal fluctuations in Carbohydrates during different Seasons	87
IV SUMMARY AND CONCLUSIONS		
BIBLIOGRAPHY		
STATEMENT - I		
STATEMENT - II		
		119