

Contents

C O N T E N T S

Chapter	Title	Page
	Introduction	
I	REVIEW OF LITERATURE	
	A] Soil salinity problem	1
	1. Process of soil salinization	1
	2. Soil salinity problem in India	9
	B] HALOPHYTES	
	1. Introduction	14
	2. Classification of halophytes	15
	3. Economic importance of halophytes	16
	4. Halophyte Survey and leguminous halophytes	17
	C] ABOUT <u>DERRIS</u>	
	1. Introduction	22
	2. Distribution	25
	3. Morphology	29
	4. Anatomical studies	31
	5. Cytological studies	34
	6. Ecophysiological studies	34
	7. Economic importance of <u>Derris</u> species	35
II	A] Materials	42
	B] Methods	42
	1. Habitat analysis	42
	a) Soil analysis	42
	2. Plant analysis	
	a) Introduction	45

(ii)

Contents (Contd...)

Chapter	Title	Page
b)	Anatomical studies	46
c)	Analysis of inorganic constituents	47
d)	Analysis of organic constituents	50
i)	Moisture percentage	50
ii)	Carbohydrates	50
iii)	Study of sugar composition of leaves	52
iv)	Total nitrogen	54
v)	Free proline	55
vi)	Study of amino acid composition	56
vii)	Organic acids (TAN)	57
viii)	Chlorophylls	58
ix)	Total polyphenols	59
x)	Qualitative analysis of phenolic compounds	60
3.	Pod and seed analysis and germination studies	61
III	RESULTS AND DISCUSSION	
1.	Habitat analysis	63
a)	Soil analysis	63
2.	Plant analysis	66
a)	Leaf anatomy	66
b)	Nodulation studies	71
c)	Analysis of inorganic constituents	75
i)	Sodium	75
ii)	Chloride	81

(iii)

Contents (Contd...)

Chapter	Title	Pa
	iii) Potassium	8
	iv) Calcium	9
	v) Magnesium	9
	vi) Phosphorus	9
	vii) Iron	1
	viii) Manganese	1
	ix) Zinc	1
	x) Copper	:
	x1) Cobalt	:
d)	Analysis of organic constituents	
	i) Moisture percentage	
	ii) Carbohydrates	
	iii) Total nitrogen	
	iv) Free proline and other amino acid	
	v) Titratable acid number (TAN)	
	vi) Chlorophylls	
	vii) Total polyphenols	
C)	Pod and seed analysis and germination studies	
IV	SUMMARY AND CONCLUSIONS	
	BIBLIOGRAPHY	
	STATEMENT - I	
	STATEMENT - II	