

CONTENTS

	Page
LIST OF TABLES	i
LIST OF FIGURES	v
I. INTRODUCTION	1
II. REVIEW OF LITERATURE	4
Experiment I Effect of growing media	4
Experiment II Effect of fertilization	18
Experiment III Effect of irrigation regimes	33
Experiment IV Effect of growth regulators	39
III. MATERIALS AND METHODS	50
IV. RESULTS AND DISCUSSION	62
IV. 1. Experiment dealing with planting media	62
IV. 1. A. Experiment I. "3 months old seedlings"	62
IV. 1. A. 1. Vegetative growth measurements	62
IV. 1. A. 2. Root growth measurements	68
IV. 1. A. 3. Chemical composition	72
IV. 1. B. Experiment II. "one year old seedlings"	81
IV. 1. B. 1. Vegetative growth measurements	81
IV. 1. B. 2. Root growth measurements	87
IV. 1. B. 3. Chemical composition	91

IV. 2. Experiment dealing with nutrition treatments	99
IV. 2. A. Experiment I. "3 months old seedlings"	99
IV. 2. A. 1. Vegetative growth measurements	99
IV. 2. A. 2. Root growth measurements	113
IV. 2. A. 3. Chemical composition	123
IV. 2. B. Experiment II. "one year old seedlings"	171
IV. 2. B. 1. Vegetative growth measurements	171
IV.2. B. 2. Root growth measurements	187
IV.2. B. 3. Chemical composition	200
IV. 3. Experiment dealing with irrigation regimes	247
IV. 3. A. Experiment I. "3 months old seedlings"	247
IV. 3. A. 1. Vegetative growth measurements	247
IV. 3. A. 2. Root growth measurements	250
IV. 3. A. 3. Chemical composition	253
IV. 3. B. Experiment I. "one year old seedlings"	258
IV. 3. B. 1. Vegetative growth measurements	258
IV. 3. B. 2. Root growth measurements	261
IV. 3. B. 3. Chemical composition	264
IV. 4. Experiment dealing with growth regulator	269
IV. 4. A. The effect of growth regulator on <i>Yucca elephantipes</i>	269

IV. 4. A. 1. Vegetative growth measurements	269
IV. 4. A. 2. Root growth measurements	274
IV. 4. A. 3. Chemical composition measurements	276
IV. 4. B. The effect of growth regulator on <i>Yucca filamentosa</i>	280
IV. 4. B. 1. Vegetative growth measurements	280
IV. 4. B. 2. Root growth measurements	284
IV. 4. B. 3. Chemical composition measurements	287
IV. 4. C. The effect of growth regulator on <i>Yucca filamentosa</i> var. <i>variegata</i>	290
IV. 4. C. 1. Vegetative growth measurements	290
IV. 4. C. 2. Root growth measurements	294
IV. 4. C. 3. Chemical composition measurements	296
V. SUMMARY AND RECOMMENDATION	315
VI. LITERATURE CITED	327
VII. ARABIC SUMMARY	