

CONTENTS

PART I : CYTOLOGY

	PAGE
INTRODUCTION	ii 1
MATERIALS AND METHODS	ii 5
OBSERVATIONS	ii 10
DISCUSSION	
A. CYTOLOGICAL EVOLUTION IN THE MALVACEAE	
a. Basic chromosome numbers	ii 85
b. Evolution of basic numbers	ii 134
c. Polyploidy	ii 140
B. CYTOLOGY AND SYSTEMATICS	
a. Origin and relationships of Malvaceae	ii 145
b. Classification of Malvaceae	ii 149
SUMMARY	ii 156
REFERENCES	ii 162

PART II : HYBRIDIZATION STUDIES

INTRODUCTION	ii 188
MATERIALS AND METHODS	ii 190
OBSERVATIONS AND DISCUSSION	
A. Intraspecific crosses	ii 194
a. Intraspecific crosses in <u>Urena lobata</u>	ii 194

B. Interspecific crosses	ii	201
a. Interspecific crosses in <u>Abelmoschus</u>	ii	201
b. Interspecific crosses in <u>Hibiscus</u>	ii	222
i. Crosses involving <u>H. hirtus</u>	ii	223
ii. Crosses involving <u>H. ovalifolius</u>	ii	228
iii. Crosses involving <u>H. furcatus</u>	ii	232
iv. Crosses involving <u>H. vitifolius</u>	ii	234
v. Crosses involving <u>H. surattensis</u>	ii	235
vi. Crosses involving <u>H. rosa-sinensis</u>	ii	237
vii. Crosses involving <u>H. sabdariffa</u>	ii	238
viii. Crosses involving <u>H. canescence</u>	ii	239
ix. Pollen tube growth studies	ii	242
c. Interspecific crosses in <u>Pavonia</u>	ii	246
d. Interspecific crosses in <u>Sida</u>	ii	247
e. Interspecific crosses in <u>Abrutia</u>	ii	248
C. Intergeneric crosses	ii	249
a. Intergeneric crosses between <u>Abelmoschus</u> and <u>Hibiscus</u> species	ii	249
b. Pollen tube growth studies	ii	254
SUMMARY	ii	257
REFERENCES	ii	260