

C O N T E N T S

	Page
I. INTRODUCTION.....	1
II. REVIEW OF LITERATURE.....	3
1. Heterosis.....	3
2. Combining ability.....	13
3. Association analysis.....	24
a. Correlations.....	24
b. Path analysis.....	28
III. MATERIAL AND METHODS	31
IV. RESULTS AND DISCUSSION.....	42
1. Heterosis.....	42
2. Combining ability.....	56
a. General combining ability effects.....	58
b. Specific combining ability effects.....	64
3. Association analysis.....	72
a. Correlations.....	72
b. Path analysis.....	77
V. SUMMARY.....	81
VI. LITERATURE CITED.....	86
ARABIC SUMMARY.....	