

CONTENTS

	<u>Pages</u>
I. INTRODUCTION.....	1
II. REVIEW OF LITERATURE.....	3
III. MATERIALS AND METHODS	14
IV. RESULTS AND DISCUSSION.....	21
A. Partitioning of phenotypic variance into its components in the M_2 and M_3 populations.	21
1. Number of fruiting branches per plant.	21
2. Length of fruiting zone.	26
3. Plant height.	30
4. Number of capsules per plant.	34
5. Number of seeds per capsule.	40
6. Weight of seeds per capsule.	44
7. Weight of seeds per plant.	49
B. Correlation and regression analysis in the M_2 and M_3 generations :	55
1. Number of fruiting branches per plant.	55
2. Length of fruiting zone.	64
3. Plant height.	70
4. Number of capsules per plant.	76
5. Number of seeds per capsule.	83
6. Weight of seeds per capsule.	88

C.	Correlation and regression between M_2 and M_3 generations.	119
1.	Number of fruiting branches per plant.	119
2.	Length of fruiting zone.	122
3.	Plant height.	123
4.	Number of capsules per plant.	127
5.	Number of seeds per capsule.	130
6.	Weight of seeds per capsule.	132
7.	Weight of seeds per plant.	134
V.	SUMMARY	137
VI.	LITERATURE CITED.....	142
	ARABIC SUMMARY	
