

C O N T E N T S

	Page
I. INTRODUCTION	1
II. REVIEW OF LITERATURE	4
II.1. Effect of some micronutrients and commercial folifertilizers on tomato growth, chemical composition, flowering, yield and fruit quality	4
II.1.1. Effect on plant growth	4
1.2. Effect on chemical composition of plants	8
2.a. Chlorophyll and carotene content in leaves	8
2.b. NPK content in plant organs	9
1.3. Effect on flowering and fruit setting	11
1.4. Effect on tomato yield and its components	12
1.5. Effect on tomato fruit quality	15
5.a. Physical characteristics of tomato fruits	15
5.b. Chemical constituents of tomato fruits	16
II.2. Effect of seed sowing and seedling protec- tion methods on germination, growth and quality of tomato transplants	19
2.1. Effect on germination:	19
1.a. Effect of seedling protection method	19
1.b. Effect of seed sowing method	19
2.2. Effect on seedling growth:	20
2.a. Effect of seedling protection method	20
2.b. Effect of seed sowing method	21
2.3. Effect of seedling protection method on early production of tomato seedlings	22

	Page
III. MATERIALS AND METHODS	25
III.1. <u>First Experiment</u> : Effect of some foliferti- lizers and micronutrients on tomato growth, chemical composition, flowering, yield and fruit quality	26
Experimental procedures:	28
1.1. Vegetative growth characteristics	28
1.2. Chemical constituents of plant foliage..	29
1.3. Flowering characteristics	30
1.4. Fruit yield and its components	30
1.5. Fruit quality	31
III.2. <u>Second Experiment</u> : The effect of seed sowing and seedling protection methods on germination, growth and quality of tomato transplants	33
Experimental procedures:	35
2.1. Germination percentage	35
2.2. Rate of germination	35
2.3. Vegetative characteristics	36
2.4. Nursery period	36
IV. RESULTS AND DISCUSSION	38
IV.1. <u>First Experiment</u> : Effect of some micro- nutrients and commercial folifertilizers on tomato growth, chemical composition, flowering, yield and fruit quality	38
1.1. Vegetative growth characteristics	38
1.2. Chemical composition of tomato plants ..	41
2.a. Chlorophyll and carotene content of leaves	41
2.b. NPK content in tomato foliage	43
1.3. Flowering and fruit setting	45
1.4. Fruit yield and its components	48

	Page
1.5. Tomato fruit quality	53
5.a. Physical characteristics of tomato fruits	53
5.b. Chemical constituents of tomato fruits	53
IV.2. <u>Second Experiment:</u> Effect of seed sowing and seedling protection method on seed germination as well as growth and quality of tomato transplants	60
2.1. Germination of tomato seeds	60
2.2. Growth and quality of tomato transplants	62
2.a. Morphological characteristics	62
2.b. Vegetative growth of tomato transplants	65
2.c. Nursery period	67
V. SUMMARY AND CONCLUSION	69
VI. LITERATURE CITED	75
ARABIC SUMMARY	