

CONTENTS

	Page
1. INTRODUCTION	1
2. REVIEW OF LITERATURE	4
2. 1. Hatchability	4
2. 2. Body weight	5
2. 3. Relative growth rate	8
2. 4. Body measurements related to growth parameters	9
2. 5. Carcass characteristics (dressing , blood and feathers percentage)	11
2. 6. Thyroid gland weight and structure	15
2. 7. Some blood constituents	17
3. MATERIALS AND METHODS	22
4. RESULTS AND DISCUSSION	33
4. 1. First Experiment	33
4. 1. 1. Hatchability and Mortality rate	34
4. 1. 2. Body weight	37
4. 1. 3. Relative growth rate	42
4. 1. 4. Body measurements	45
4. 1. 4. 1. Breast width	45
4. 1. 4. 2. Keel length	48
4. 1. 4. 3. Shank length	51
4. 1. 5. Carcass characteristics	54
4. 1. 5. 1. Eviscerating losses	54
4. 1. 5. 2. Edible meat	61
4. 1. 6. Thyroid gland estimations	67
4. 1. 6. 1. Absolute and proportional thyroid weight	67
4. 1. 6. 2. Histological structure	72
4. 1. 7. Serum blood analysis	77
4. 1. 7. 1. Glucose level	77
4. 1. 7. 2. Total proteins	80
4. 1. 7. 3. Total lipids	84
4. 1. 7. 4. Calcium content	88
4. 1. Second Experiment	91
4. 2. 1. Body weight	92
4. 2. 2. Relative growth rate	96

	page
4. 2. 3. Body measurements	98
4. 2. 3. 1. Breast width	98
4. 2. 3. 2. Keel length	101
4. 2. 3. 3. Shank length	104
4. 2. 4. Carcass characteristics	107
4. 2. 4. 1. Eviscerating losses	107
4. 2. 4. 2. Edible meat	114
4. 2. 5. Thyroid gland estimations	120
4. 2. 5. 1. Absolute and proportional thyroid weight	120
4. 2. 5. 2. Histological structure	125
4. 2. 6. Serum blood analysis	128
4. 2. 6. 1. Glucose level	128
4. 2. 6. 2. Total proteins	131
4. 2. 6. 3. Total lipids	135
4. 2. 6. 4. Calcium content	139
 4. 3. Third Experiment	 142
4. 3. 1. Hatchability	143
4. 3. 2. Body weight	146
4. 3. 3. Relative growth rate	150
4. 3. 4. Carcass characteristics	152
4. 3. 4. 1. Eviscerating losses	152
4. 3. 4. 2. Edible meat	158
4. 3. 5. Thyroid gland estimations	164
4. 3. 5. 1. Absolute and proportional thyroid weight	164
4. 3. 5. 2. Histological structure	168
4. 3. 6. Serum blood analysis	171
4. 3. 6. 1. Glucose level	171
4. 3. 6. 2. Total proteins	174
4. 3. 6. 3. Total lipids	178
4. 3. 6. 4. Calcium content	182
 5. SUMMARY	 185
 6. REFERENCES	 191
 7. ARABIC SUMMARY	