## **CONTENTS**

	Page No
1- INTRODUCTION	1-4
2- REVIEW OF LITERATURE	5
2-(1) Food Irradiation	5-6
2-(2) Chemical analysis	7
2-2-1- Chemical composition of chicken meat and fish flesh.	7-8
2-2-2- Chemical composition of spices .	9-11
2-2-3- Effect of gamma irradiation and cold storage on chemical composition of chicken meat and fish flesh.	11
2- 2-3-1- Moisture .	11-12
2-2-3-2- Protein .	12-14
2-2-3- 3- Fat .	14-17
2-2-3-4- Total volatile basis nitrogen.	18-19
2-2-3-5- Thiobarbituric acid.	19-21
2-2-3-6- pH	21-22
2-2-4- Effect of gamma irradiation and room temperature storage on chemical composition of spices .	22-23
2-(3) Microbiological evaluation :	23
2-3-1- Microbiology of chicken meat and fish flesh.	23-28
2-3-2- Microbiology of spices.	28-31
2-3-3- Effect of gamma irradiation and cold storage on microbiological load of chicken meat and fish fesh.	31-34
2-3-3-1 Effect of gamma irradiation on microbial load of	
chicken meat and fish flesh.	34-35
La contraction of the contractio	

	Page No
2-3-3-2 Effect of cold storage on microbial load of chicken meat and fish flesh.	36-39
2-3-4- Effect of gamma irradiation and room temperature storage on microbiological load of spices.	39-41
2-3-5- Isolation and identification of Bacillus spp.	41-43
3- MATERIAL AND METHODS:	44
3-1- Materials :	44
3-1-1- Sampling .	44
3-1-2- Preparation and storage of samples.	44-45
3-1-3- Irradiation .	45
3-1-3-1- Preparation of samples	45-46
3-1-3-2 - Radiation treatment.	46
3- 2- Methods:	46
3-2-1- Chemical Analysis	46-47
3-2-2- Microbiological Examination.	47-51
3-2-3- Isolation and identification of Bacillus spp.	51-55
3- 3- Media : (Table (A)	56
4- RESULTS AND DISCUSSION :	57
4-1- Effect of gamma irradiation and cold storage on the chemical composition of chicken meat and fish flesh.	57-80
4-2- Effect of gamma irradiation and cold storage on the microbial aspects of chicken meat.	80-95
4-3- Effect of gamma irradiation and cold storage on the microbial aspects of fish flesh (carp).	95-115

·	Page No
4-4 Effect of gamma irradiation and room temperature storage on the chemical composition of Dry fish (Wazaf).	115-134
4-5-Effect of gamma irradiation and room temperature storage on the microbial aspects of Dry fish (Wazaf).	135-153
4-6- Effect of gamma irradiation and room temperature storage on the chemical composition of Cinnamon, Cloves and Cardamom.	153-166
4-7- Effect of gamma irradiation and room temperature storage on the microbial aspects of Cinnamon, Cloves and Cardamom.	166-210
4-8- Effect of gamma irradiation and room temperature storage on the chemical composition of Red Hot Pepper.	211-216
4-9- Effect of gamma irradiation and room temperature storage on the microbial aspects of Red Hot Pepper.	216-234
4-10- Effect of irradiation and room temperature storage on the chemical composition of Fenugreek flour.	235-239
4-11- Effect of gamma irradiation and room temperature storage on the microbial aspects of Fenugreek flour.	239-257
4-12- Isolation and identification of Bacillus spp.	258-263
5- SUMMARY:	264-269
6- REFERANCE :	270-293
ARABIC SUMMARY:	11-1