## LIST OF CONTENTS

1 DITPODUCTION	Pages	
1.INTRODUCTION	2	
AIM OF INVESTIGATION	5	
2.REVIEW OF LITERATURE PART –I	7	
Physical and chemical properties of olive oil	7	
• Effect of gamma irradiation on chemical	11	
composition of olive fruits		
• Effect of ionizing radiation on microorganisms	13	
• Effect of microwave heating and soaking on	17	
seed components		
• Why we substituted milk fat with olive oil in	21	
some dairy product		
• The use of vegetable oil in soft cheese making.	27	
• Effect of gamma irradiation on some	32	
properties and keeping quality of cheese		
• The use of vegetable oil in yoghurt manufacture.	33	
3.MATERIAL AND METHODS PART –I 3-1:Materials 3-1-1:Source of olive fruits	36 36 36	
3-2Material	36	
3-2-1: source of milk	36	
3-2-2: rennet	36	

3-2-3 : salt			36
3-2-4: olive oil			37
3-2-5 : yoghurt starter culture			37
A- Methods		Ç	37
3-3-1:Treatments of olive fruits			37
3-3-1: control samples			37
3-3-1-2: Irradiation process			37
3-3-1-3:Hot soaked samples(Soaking process)			37
3-3-1-4:Microwave Treatments		(6)	38
3-4:Storage:			38
3-5:Olive oil Separation			38
3-6-Chemical analysis			38
3-6-1: Moisture, protein, ash and total lipids.			38
3-6-2: Acid value and peroxide value		*	39
3-6-3: Iodine value and saponification number			39
8-6-4: Thiobarbituric acid (T.B.A).			39
8-6-5: Total carbohydrates		V Af	39
Fatty acids composition.		47 01	39
-8- Microbiological Analysis			40
-8-2: Total bacterial Counts.			40
-8-3: Total mold and yeast counts.	3.61		
-9- Sensory evaluation			40

3-3- Methods part II	3	41
3-10- Cheese manufacture	53	41
3-11- Experimental procedure		41
3-12- The treatments		42
3-13- Yoghurt manufacture		44
3-13- Experimental procedure		44
3-14- Organoleptic evaluation	.00	44
3-14-1: Cheese quality		44
3-14-2: Yoghurt quality		45
3-15- Chemical analysis		45
3-16- Microbiological evaluation of cheese	2	47
3-16-2: Total bacterial Counts.	3	47
3-16-3:Total mold and yeast counts		47
4-RESULTES AND DISCUSSION PART-I		48
4-1:Effect of gamma irradiation, microwave heating		48
and Soaking on chemical composition of olive fruit		
4-1-1: Moisture content	>	49
4-1-2: Oil content		50
4-1-3: Protein content		50
4-1-4: Carbohydrates and ash contents	7.	50
4-2: Sensory evaluation	·	53
4-3:Microbiological evaluation of Cheese		57
4-3-1:Total bacterial Counts		57

4-3-2: Total mold and yeast counts	59
4-4: Effect of gamma irradiation, microwave heating	
and Soaking on chemical properties olive oil	62
4-4-1: Acid value	
4-4-2: Peroxide value	62
4-4-3: Thiobarbituric acid	66
4-4-4: Iodine value	70
4-4-5: Saponification value	74 75
4-5: Effect of gamma irradiation, microwave heating	, 5
and Soaking on fetty aside Souline it	77
and Soaking on fatty acids of olive oil	*
4-6:Compositional quality and ripening changes of	88
soft cheese containing olive oil.	
4-6-1:Moisture content	88
4-6-2: Titratable acidity	95
4-6-3:PH content	93
4-6-4: Fat content	101
4-6-5:Ash content	106 110
4-6-6:Total volatile fatty acids.	
4-6-7:Total and Soluble nitrogen in refrigerator	114
4.6.0.T	119
mitogen at 100m	127
emperature.	
1-7: Microbiological evaluation of Cheese	129

	4-7-1: Total bacterial Counts		129
	4-7-2: Total mold and yeast counts		136
	4-8: Sensory evaluation		143
	4-9:Manufacturing of yoghurt with different levels of	(4)	150
	olive oils.		150
	4-9-1: Total solid.		150
	4-9-2: Fat content	25 84	
	4-9-3:Titratable acidity	3 (E)	151 153
	4-9-4: pH content		153
	4-9-5:Total volatile fatty acids.		158
	4-10: Sensory evaluation		160
	ENGLISH SUMMARY		164
)	REFERENCES	580	170
•	ARABIC SUMMARY		