

CONTENTS

	Page
1- INTRODUCTION.	1
2- REVIEW OF LITERATURE.	4
2.1- Role of gonadal and sexual hormones in regulating the reproductive activities in sheep.	4
2.2- The hormonal normal levels in various reproductive stages.	10
2.3- Estrous cycle in sheep.	14
2.3.1- Nature of estrous cycle stages..	14
2.3.2- Hormonal pattern of estrous cycle stages.	18
2.3.3- Abnormal estrous cycle.	25
2.4- Hormonal pattern of pregnancy period....	31
2.5- Hormonal and reproductive pattern of the postpartum period.	39
3- MATERIALS AND METHODS.	44
3.1- Management and grouping of the experimental animals.	44
3.2- Mating time and mating system.	48
3.3- Blood sampling for hormonal assay.	48
3.4- Estrogen radioimmunoassay.	50
3.5- Statistical analysis.	51
4- RESULTS AND DISCUSSION.	54
4.1- Plasma estrogen level at different stages of estrous cycle.	54
4.1.1- Effect of ewe's age.	54
4.1.2- Effect of ewe's body weight....	58
4.1.3- Effect of parities.	63
4.1.4- Effect of type of birth.	67
4.1.5- Effect of the lamb sex.	71

4.1.6-	Plasma estrogen pattern at successive estrus for ewes of different parities showed irregular estrous cycle.	77
4.1.7-	The regression equations for predicting plasma estrogen level during estrous cycle.	84
4.1.8-	The linear correlation between plasma estrogen level and time intervals throughout the estrous cycle in Ossimi ewes.	87
4.2-	Plasma estrogen level during the pregnancy period.	89
4.2.1-	Effect of ewe's age.	89
4.2.2-	Effect of ewe's body weight.....	94
4.2.3-	Effect of parities.	98
4.2.4-	Effect of type of birth.....	102
4.2.5-	Effect of the lamb sex.....	106
4.2.6-	The regression equations for predicting plasma estrogen level during pregnancy period.....	112
4.2.7-	The linear correlation between plasma estrogen level and time intervals along 130 days of pregnancy period in Ossimi ewes.	116
4.2.8-	Effect of ewe's age, ewe's body weight, parity number, type of birth and sex of lamb on gestation length.	118

4.2.9-	The relationship between the gestation length of ewes and the birth weight of their lambs.	122
4.3-	Plasma estrogen level along 60 days of the postpartum period.	125
4.3.1-	Effect of the ewe's age.	125
4.3.2-	Effect of ewe's body weight.....	129
4.3.3-	Effect of parity number.	134
4.3.4-	Effect of type of birth.	139
4.3.5-	Effect of the lamb sex.	143
4.3.6-	The regression equation for predicting plasma estrogen level during postpartum period.....	150
4.3.7-	The linear correlation between plasma estrogen level and time intervals along 60 days of postpartum period in Ossimi ewes....	154
SUMMARY.		156
REFERENCES.		162
ARABIC SUMMARY.		