

1. INTRODUCTION

During the last few years many efforts are paid in order to increase the reproductive efficiency in sheep. Increasing the reproductive rate depends, to a great extent, on understanding the various aspects of reproduction and factors affecting them.

It is now considered that the reproductive efficiency in sheep depends on the proportion of ewes mated which become pregnant and the lambing rate which is calculated as number of lambs born of ewes. Lambing rate in turn depends on the number of ova failed to become fertilized or embryos which died and resorbed before birth subtracted from the number of ovulations.

Many factors were found to be of great importance in influencing the reproductive efficiency in ewes. Reproductive and metabolic hormones are considered the most important ones.

Many investigations could be met in literature concerning the role of sexual hormones in reproduction. But none of them dealt with the optimal serum level of these hormones during the various stages of reproduction (estrous cycle, pregnancy and lactating periods) which realizes the higher reproductive efficiency. So, it was suggested that it