Effect of Combinations of PMSG and FSH without Feed Improvement on Pregnancy Rates and Litter Size of Fat Tailed Ewes (*Ovis aries*)

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**ABSTRACT**

The purpose of this research was to determine if superovulatory treatment using the combinations of PMSG and FSH without feed improvement on pregnancy rates and litter size of fat tailed ewes. In this research, a total of 24 ewes and 12 rams were used. Ewes were randomly divided into four treatment groups. Ewes of all groups were synchronized their estrus using twice Prostaglandin F2α (PGF$_{2\alpha}$) injection intramuscularly. Control group (P0) were mated naturally at estrus. On day-9, P1, P2, and P3 superovulated treatment were performed using 250 IU PMSG; 150 IU PMSG and 20 mg FSH; 100 IU PMSG and 40 mg FSH. Ewes exhibiting estrus were mated and injected with hCG. Data was analyzed by Chi-Square Test for pregnancy and Kolmogorov-Smirnov Test for Test of Normality and followed by Kruskal-Wallis Test for litter size. The result of this research indicated that there were no significant differences (p≥0.05) between all four treatment groups, proved that there was no increase pregnancy rates and litter size with combinations of PMSG and FSH without feed improvement.

**Key words**: Fat Tailed Ewes, PMSG, FSH, pregnancy, litter size