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USING FGA SPONGE + GnRH FOR IMPROVING FERTILITY IN GOATS DURING THE BREEDING SEASON

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ABSTRACT

The fertility of 1/2 Damascus-Baladi goats was evaluated when treated with FGA-sponge plus injection of GnRH. Thirty does were divided into 3 equal groups: A, B and C. All groups were synchronized during the breeding season with FGA-sponges for 15 days then single intra-muscular injection of 4 μg GnRH on day 13, 14 and 15 from the time of sponge insertion was tried with groups A, B and C, respectively. Estrous behavior was observed on 83.3% of the does in the three treatment groups (A, B and C). All does in group A exhibited estrus (100%) which was higher ($P < 0.05$) than groups B and C (80% and 70%, respectively). All does in the three treatment groups showed estrus 24 to 36 h after sponge withdrawal (overall mean 30.5 ± 0.9 h); most does exhibited estrus at 28 h ($P < 0.05$). Percentages of does showed estrus 24, 28, 32 and 36 h after sponge withdrawal were 8, 40, 32 and 20%, respectively. Estrus duration was longer for does in group A (31.9±3.8 hr) ($P < 0.05$) than groups B and C (24.6±3.7 and 23.0±3.7 hr, respectively). Does in group C had the lowest ($P < 0.05$) conception rate (50%) compared to groups A and B (70% and 80%, respectively). Does in group B showed the highest conception rate and litter size (80% and 1.6 ± 0.2, respectively), suggesting that treatment with single intra-muscular injection of 4 μg GnRH 24 h before FGA-sponge removal could give a good result of estrus synchronization, super ovulation and conception.

Keywords*: Goats; GnRH; estrous activity; fertility; progesterone.*

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