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## Changes of Estrus Status and Follicle Development on the Ov-Synch Treatment for Timed Artificial Insemination of Deer (Elk)

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This study was conducted to investigate optimal insemination timing as a scanning changes of follicular development by synchronization of ovulation(Ov-synch.) treatment for timed artificial insemination of deer. Sixty-nine elk does were inserted CIDR into virginia for 14 days from 16 to 29 September(breeding season). After removal of CIDR, they were injected with hCG 500 IU i.m. at 18 hours for follicular growth and with GnRH 300 µg i.m. at 48 hours for follicular ovulation. They were twice inseminated at 18 hours and 24 hours after injection of GnRH. To investigate changes of follicular growth, the follicular sizes were measured with 6.5 Mhz ultrasonic probe(SONOACE 600, Dongdo biotec., Korea) when the artificial inseminations were performed. The average follicular size were 11.2±2.4mm and 14.8±3.2mm(SD) at that time, respectively. The follicular size were evaluated with adding vertical length and horizontal length and then dividing it into two.

The estrus status of 69 does at insemination were divided to excellent(uterus tension and soluble viscous fluid), good(soluble viscous fluid), fair(response) and poor(no response) with 5.8%, 24.6%, 63.8% and 5.8%, respectively.

Key words: *Deer, Cattle, Estrus status, Follicular, Artificial insemination*