Technology Development of Early Diagnosis for Pregnancy in Deer

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The deer was inseminated at the breeding season, which only shows appearance of the estrus cycles. Early diagnosis of pregnancy is very useful to select non-pregnant does and also very important to decide re-inseminations or mating for producing of calves. Therefore, for the development of techniques on the early diagnosis of pregnancy of deer, the results of this study were summarized as following.

To compare the accuracy of diagnosis for pregnancy, when pregnancy diagnosis was conducted by progesterone(P_4) measurements, rectal palpation and ultrasonography method, conception rate were appeared highly at ultrasonograhpy(72.1%, 44/61 does) than that of P_4 measurement (71.1%, 32/45 dose) and rectal palpation.(60.6%, 37/61 does). It was indicated that progesterone levels which were higher or lower than 1.9 ng/ml, were supposed to indicate pregnancy or non-pregnancy.
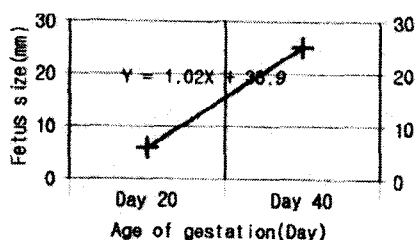

Figure 1. An equation of the first degree for expectation of age of gestation in deer(Elk)

Expectation of age of gestation was proposed in the early pregnant periods, when fetus size(X) were 5.96 ± 2.6mm (Day 40) and 25.50 ± 7.2mm (Day 60). Y(Age of gestation) for expectation of age of gestation was $1.02X + 33.9$. The estimated value of X is written X (fetus size) = [(length + width) 2], where $Y = 1.02X + 33.9$.(Figure 1.)

Key words) *Deer, pregnancy, diagnosis, progesterone, ultrasonography*