

**DETECTION OF FECAL PROGESTERONE HORMONE TO
DETERMINE THE FERTILITY LEVEL OF FEMALE BAWEAN DEER
(*Axis kuhlii*)**

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ABSTRACT

The aim of the study was to detect levels of the faecal progesterone hormone in females bawean deer (*Axis kuhlii*) which were tested using *Enzyme-Linked Immunosorbent Assay* (ELISA) for determining the reproductive status of female bawean deer. The study used five females bawean deer (*Axis kuhlii*) in Taman Flora Surabaya, which were marked using R1, R2, R3, R4, and R5 necklaces. The feces of each deer was collected on the 1st day, 6th day, 11th day, 16th day, and 21st day. Samples were collected in the morning and stored at -20°C. The samples which were collected then extracted using the freeze dry method. Samples were tested using *Enzyme-Linked Immunosorbent Assay* (ELISA). The results of the measurement of the levels of fecal progesterone hormone in five bawean deers showed that three bawean deer (R1, R4, and R5) were in the luteal or pregnant phase as indicated by the increased of progesterone from 1st day to 21st day. While the other two Bawean deer (R2 and R3) were in the follicular or estrous phase as indicated by the decreased of progesterone on 11th day for deer R2 and 16th day for deer R3. The results showed that the levels of the progesterone hormone in feces can be used to determine the follicular phase and luteal phase and the pregnancy status of female bawean deer (*Axis kuhlii*).

Key words: bawean deer, fecal steroid, progesterone, fertility level