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Research Article

Diagnosis and monitoring of pregnancy in banteng (*Bos javanicus*) by ultrasound

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ABSTRACT

Pregnancy can be detected by several methods, including rectal palpation, measurement of progesterone hormone concentration, and ultrasound (USG). The aim of this study is to diagnose early pregnancy and monitor pregnancy development using ultrasound in Javanese Banteng (*Bos javanicus*). Three female Banteng from Taman Safari Indonesia, Cisarua, Bogor, Indonesia, were used for this study. Pregnancy diagnosis was performed 11, 18 and 20 days after insemination. Diagnosis was based on the presence of the amniotic sac, heart rate, and embryonic and fetal development. Embryonic and fetal development were monitored until day 60 of gestation, and placental development was monitored from day 60 to day 270. The results showed that on day 20 after insemination, a 0.33-cm chorioallantois membrane with a white spot inside was detected. On day 27, a 0.55 cm embryo and a 1.16 cm amniotic sac were detected. The size of the placenta of the three bantengs was 1.21 ± 0.3 cm on day 60 and continued to increase until it reached 5.57 ± 0.26 cm on day 270. This study concludes that it is possible to diagnose early pregnancy at day 20 after fertilization and placental development in Banteng.

Key words: Banteng, Pregnancy diagnosis, Placentome, Ultrasound