

# „THE USE OF ULTRASONOGRAPHY IN THE ASSESSMENT OF PREGNANCY COURSE AND PRENATAL DIAGNOSTICS IN GOATS” – ABSTRACT

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The scientific aim of the doctoral dissertation was to assess the possibility of using ultrasonography in the study of the course of pregnancy and embryo-foetal development in goats. To achieve this goal, the morphometric parameters of embryos/fetuses were determined and the Doppler parameters of the umbilical arteries and *ductus venosus* were assessed during pregnancy in goats. An analysis of the current state of knowledge in the field of ultrasound examination of pregnancy in this species was also carried out.

The research was carried out on Boer goats kept on a farm at the Experimental Department of the National Research Institute of Animal Production in Kołbacz. The goats were mated during their natural breeding season, estrus synchronization methods were not used. The duration of gestation was determined by the day of coverage and confirmed retrospectively after delivery.

In the study, the parameters of embryo-foetal morphometry were analyzed in the first trimester of pregnancy using B-Mode ultrasound. On the other hand, using Doppler ultrasonography, hemodynamics in the umbilical arteries and in the *ductus venosus* in pregnant goats was assessed in the first and third trimester. The usefulness of the examined parameters in prenatal diagnosis in goats was also determined.

The obtained results showed that the parameters of embryo-foetal morphometry depend on the day of pregnancy. Therefore, these parameters should be taken into account in ultrasound assessment of fetal development in goats, especially in the first trimester of pregnancy.

The conducted research indicates the possibility of using Doppler ultrasonography in monitoring the hemodynamics of the umbilical artery and *ductus venosus* during pregnancy in goats.

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