

URINALYSIS OF PREGNANT AND NON-PREGNANT ALPACAS (*Vicugna pacos*) AND BACTRIAN CAMELS (*Camelus bactrianus*)

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ABSTRACT

The aim of this study was to test the possibility of using urinalysis in health control or alternatively for pregnancy diagnosis in non-invasively obtained samples from female alpacas and Bactrian camels kept in central Europe. Urine samples were collected from 12 female alpacas from three farms and from 14 female Bactrian camels from four zoos in the Czech and Slovak Republics. Samples were collected repeatedly at intervals of 4–9 weeks from 2010 to 2014. Spontaneous urination of animals was used to collect fresh urine samples into 0.5 L plastic cups held by hand or fastened to a telescopic rod. Immediately after sampling, the samples were tested using Duotest® double zone pH-indicator papers and DekaPhan® Leuco diagnostic test strips to obtain information about the specific gravity, the pH and the presence of leucocytes, nitrites, proteins, glucose, ketones, urobilinogen, bilirubin, blood and haemoglobin. In camels, urine colour was also observed. There were no problems with urine collections in the majority of animals thus non-invasive urine sampling was concluded as useful in camelids. However, none of the measured parameters showed a difference between pregnant and non-pregnant females ($p > 0.05$). The obtained results can serve as control values for urinalyses performed in camelids kept in small farms and zoos in the central Europe.

Key words: Alpacas, bactrian camel, urine, urinalysis