

AN ULTRASOUND METHOD FOR EVALUATION OF PHYSIOLOGICAL PARAMETERS IN CATTLE RUMEN

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Summary. A new method for the measurement of ultrasound speed in biological fluids is described in the article. The experiment was conducted in special tubes for forage digestibility analysis *in vitro*. 15 samples of different forages were analysed. The ultrasound speed was measured in the rumen fluid from clinically healthy cows (n = 4) and from cows with alkalosis (n = 4).

The following conclusions may be drawn: - the ultrasound speed in special tubes for forage digestibility analysis *in vitro* depends on the kind of the forage used; - it changes during the process of digestion; - the highest ultrasound speed was determined 24 hours after the beginning of the experiment; - the ultrasound speed was considerably higher in rumen fluids from healthy cows ($1536,07 \pm 1,22$ m/s), than from cows with alkalosis ($1523,86 \pm 0,45$ m/s).