

DIAGNOSTIC STOMACH TUBE FOR CATTLE

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Summary. The stomach tube for cattle rumen fluid sampling of an improved type has been constructed and approved at the Research center of digestive physiology and pathology, LVA. This tube consists of a plastic tube and a bronze head. The plastic tube is transparent, elastic, with a smooth surface and corresponds to the physiological parameters of the cattle throat and oesophagus. The head is compact, with a longitudinal aperture (\varnothing 14 mm) and two asymmetrically located holes (\varnothing 9 mm).

Due to its weight (350g) the head plunges into the liquid phase of the fluid in the rumen of a cow. The motoric and hydrodynamic motions in the rumen cause filling of the tube with the rumen fluid through the holes in the head and force the fluid through the plastic tube into a special container.

The efficacy of GDZ-1 has been studied, analysed and the results compared, with those obtained by means of Cherkasov's tube. 33 cows (8 healthy and 25 suffering from different forms of rumen dystonia) were studied. In healthy cows the samples were obtained in all cases (100%) by means of GDZ-1, while the performance of Cherkasov's tube was only 75%. In cases of dystonia successful sampling reached 93,94% and 66,87% respectively. GDZ-1 caused no damage of the throat and oesophagus, while in sampling by Cherkasov's tube such damage was found in 12,12% cows.

During the industrial-clinical experiment the sampling trials were successful (47 cases).

The instruction for applying the improved tube for rumen fluid sampling was approved by the Committee of Veterinary Preparations of Lithuanian Pharmacological Board. The technical instruction for the production (TS-10-07-01: Lithuanian Republic, 1992) was prepared and approved as a state standard.

Keywords: cattle, rumen fluid, stomach tube.