We conducted a comparative evaluation study of four flotation methods for the detection of eimeria oocysts in the feces of cattle with the following flotation solutions: saturated solution of sodium chloride, specific gravity of 1.18 g/m³ (Fülleborn's method), saturated solution sodium chloride and sucrose, specific gravity of 1.30 g/m³ (Reynaud method), saturated solution ammonium nitrate, specific gravity of 1.30 g/m³ (Kotelnikov-Khrenov method), saturated solution ammonium nitrate and sucrose, specific gravity of 1.35 g/m³.

The study was conducted as follows: stool samples (5 g) from calves were placed in a glass, then enriched by suspension of *E. bovis* oocysts in concentration of 50, 100, 200, 400, 800, 1600 OPG of feces were added 50 ml of an appropriate flotation solution thoroughly stirred with a glass rod, filtered through a metal sieve and leave for 25 minutes for sedimentation. Then use a wire loop shot three drops on surface film onto a glass slide and examined under a microscope. Counting the number of oocysts was carried out by at low magnification in the microscope (×120).

These data indicate a low efficiency of classical flotation methods for coproscopical diagnosis of eimeriosis in cattle. Thus, using a saturated solution of sodium chloride showed few oocysts in 2 samples (33.3%) at concentrations 1600 OPG faeces. Slightly better performance obtained by the use of saturated solution of sodium chloride – oocysts were detected in 2 (33.3%) for the intensity 800 and in 3 samples (50%) for the intensity of 1600 OPG faeces.

The use of flotation solutions with sucrose, greatly improving the efficiency of detection of oocysts by microscopy. Oocysts detected by the intensity of 100 oocysts/g of feces after the use of sucrose saturated solution of sodium chloride (50% of samples) and 200 OPG of feces – saturated solution of sodium chloride (33% of samples). In 100% of samples showed the presence of the pathogen 400 (ammonium nitrate + sucrose) and 1600 (sodium chloride + sucrose) OPG faeces.

In comparative perspective the most effective coproscopical method for the detection of eimeria invasion in calves was by flotation with saturated solution of
ammonium nitrate with added sucrose. This method provides 100% detection for eimeria in terms of the intensity of infestation of 400 OPG of feces and 50% of the intensity for invasion 100 OPG faeces. The average number of oocysts detected by this method for the intensity of 1600 OPG of feces was 26 times higher than by Fülleborn's method, 9 times – by Kotelnikov-Khrenov method and 1.4 times by Reynaud method.

**Keywords:** CALVES, *EIMERIA*, EIMERIOSIS, OOCYSTS, COPROSCOPICAL METHODS, DIAGNOSTICS.