

EFFECTS OF STRATEGIC TREATMENT WITH IVERMECTIN ON CALVES NATURALLY EXPOSED TO TRICHOSTRONGYLID INFECTION ON INTENSIVE CALF-REARING SUMMER CAMP SYSTEM IN LITHUANIA

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Summary. This study was carried out to examine the effects of strategic treatment with ivermectin on calves naturally exposed to trichostrongylid infection on intensive calf-rearing summer camp system. These are characterised by very small outdoor pens up to 190 m² in size, and a hut in which the calves are fed a diet comprising concentrates, fresh cut grass or hay, skimmed milk and water *ad libitum*. Twenty cross-bred Holstein/German black pied/Lithuanian black pied heifer-calves aged 3-6 months, were divided into two comparable groups according to their live weight. Each group was allocated in 3 equal pens. Calves in group A were treated with ivermectin at weeks 3-8-13 after the start of outdoor season while group B served as untreated controls. With regular intervals blood, faeces and herbage samples were collected for laboratory analyses. Following the first treatment the egg counts from the treated calves decreased while the controls continuously excreted trichostrongylid eggs. Herbage larval counts in all the pens were comparable until 23 July. Subsequently, there was a steep rise in larval counts ($p < 0,05$) in the pens where untreated controls were kept. The numbers of larvae recovered from group A pens remained low throughout the season. The weight gains in group A were higher from start of September till the end of the study. Higher weight gains, presumably explained by reduced herbage larval counts due to ivermectin treatments, suggest that the intensive calf-rearing summer camp systems in Lithuania may be confronted with severe trichostrongylid problems.

Keywords: calves, trichostrongyles, strategical treatment, ivermectin, summer camp.