

ABSTRACT

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Title of diploma thesis: Automation of Egg Hatch Test for *Haemonchus contortus* eggs

Haemonchus contortus is a well-known parasite of small ruminants, and its presence can lead to a severe deterioration in the animals' health and, in extreme cases, even death. The fight against *H. contortus* is complicated by increasing anthelmintic resistance, highlighting the need for research and development of reliable diagnostic methods for testing anthelmintic efficacy. This thesis focuses on comparing the sensitivity of three *H. contortus* strains (ISE, IRE, and WR) to thiabendazole (TBZ) using the Egg Hatch Test (EHT), as well as comparing manual and automated test evaluation methods. In addition, the efficacy of albendazole (ABZ) and its derivative propargylalbendazole (pABZ) was tested on the susceptible ISE strain. The results suggested that the automated system may serve as a useful tool for speeding up the analysis; however, its accuracy is not yet as high as that of manual evaluation.