## In-vitro anthelmintic activity of the Artemisia absinthium L. and Artemisia vulgaris L. extracts against Trichostrongylidae nematodes in sheep



Klavina, A.<sup>1</sup>, Keidāne, D.<sup>1</sup>, Ganola, K.<sup>1</sup>, Kovaļčuka, L.<sup>2</sup>

1 Institute of Food and Environmental Hygiene, Faculty of Veterinary Medicine, Latvia University of Life Sciences and Technologies, K. Helmana street 8, Jelgava, LV-3004, Latvia; 2 Clinical Institute, Faculty of Veterinary Medicine, Latvia University of Life Sciences and Technologies, K. Helmana street 8, Jelgava, LV-3004, Latvia

In ruminants, especially sheep and goats, gastrointestinal nematode infections and their control are relevant. Due to the anthelmintic resistance in the world, the principles of parasite control have changed. New alternatives have been sought and one of the most researched alternatives is phytotherapy. The aim of the study is to find the ovicidal and

larvicidal activity of A.absinthium and A.vulgaris

against Trichostrongylidae in sheep.

















50% 30% ethanol and acetone extracts

Artemisia absinthium L. has stronger ovicidal but Artemisia vulgaris L. - has larvicidal activity. The highest percentage of egg inhibition is 500 mg/mL dilution of A.absinthium 30% ethanol extract – 100%, then 98% are 500 mg/mL and 10mg/mL dilutions of 50% and 30% acetone extracts. 100% of larvae inhibition are all dilutions of A. absinthium and



This research was funded by the Latvia Ministry of Agriculture and Rural Support Service Republic of Latvia "Development of herbal plants containing medical extracts with anti-parasitic effect" No. 18-00-A01620-000028.

A.vulgaris 30% and 70% acetone extracts. Ethanol extracts have better ovicidal activity but larvicidal – acetone. A.absinthium and A.vulgaris have anthelmintic

activity against the Trichostrongylidae. Future studies are required to determine the anthelmintic activity of these extracts in vivo.