

Ovicidal activity of ethanolic and acetone extracts of leaves and flowers of *Tanacetum vulgare* L. against gastrointestinal nematodes of sheep

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One of the most important parasites of sheep is the gastrointestinal nematodes - Trichostrongylidae. Due to the high prevalence of gastrointestinal nematodes and the growing anthelmintic resistance today, new alternatives for their control are being sought. One such alternative method is phytotherapy.

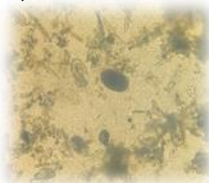


The aim of the study is to find out the ovicidal activity of tansy growing in Latvia on sheep gastrointestinal nematodes.

Extracts were prepared by Rīga Stradiņš University Faculty of Pharmacy. The leaves and flowers of the tansy were extracted separately in 70%, 50% and 30% ethanol and acetone.

Six dilutions were prepared from each extract – 500 mg/mL, 200 mg/mL, 100mg/mL, 50 mg/mL, 20 mg/mL and 10 mg/mL.

In vitro - the egg hatch test was used to determine the ovicidal activity of the extract. Non-embryonated, embryonated eggs and the first stage larvae were counted to calculate the inhibition of eggs (%).

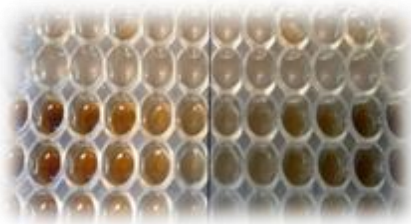


All extracts showed ovicidal activity.

The stronger activity showed leaf extract of tansy than flower extracts. According to preliminary data, the highest percentage of inhibition is 200 mg/ml dilution of leaf 50% acetone extract – 96%. Egg inhibition 92% are 500 mg/ml dilution of leaf ethanolic and acetone 50% extracts.

Tansy has ovicidal activity against the gastrointestinal nematodes (Trichostrongylidae) of sheep.

Future studies are required to determine the larvicidal activity of these extracts and in vivo testing should also be performed.



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