

## Gastrointestinal parasites in sheep used to graze the flood embankments in southern Poland

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An effective, simple, inexpensive and environmentally-friendly way of keeping flood reinforcements in good condition which is used in Poland and many other European countries is to graze sheep in them. The aim of the present study was to determine the gastrointestinal parasite infection acquired naturally by sheep during a two-year grazing period (2014 and 2015) in such areas.

To assess the level of infection, a total of 400 faecal samples from Polish Mountain Sheep were collected *per rectum* each month, and were analysed by means of the McMaster technique with some modifications. In addition, pooled faecal samples were cultured to differentiate the genera and species of gastrointestinal nematodes (GIN). Accordingly, the oocysts were allowed to sporulate to identify the species of coccidia. A few additional *post-mortem* diagnostic sections of slaughtered animals were also performed.

Coprosopic examination found the prevalence of coccidia infection to be 78.0% in 2014 and 78.2% in 2015, with the mean oocyst output of 758 OPG (2014) and 6021 OPG (2015) per 1g of faeces. As regards GIN, the prevalence was 77.2% in 2014 and 49.5% in 2015, and the intensity 470 EPG (2014) and 732 EPG (2015). Tapeworms of *Moniezia expansa* occurred in 2.8% of sheep in 2014, and 27.6% in 2015. The GIN infection involved several nematode species, with *Trichostrongylus* spp. and *Teladorsagia circumcincta* predominating. Four species of coccidia, were found.

The dynamics of parasitic infection proceeded in a similar way to those observed in other flocks of sheep grazing in the region. Despite the specific environmental conditions of the grazing areas (intermittent wetland, periodic occurrence of cervids), no increased threat of parasites with indirect development was observed. Further monitoring is essential to match the pre-designed patterns of parasite control to this kind of sheep use.

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