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Book of Abstracts

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O-2046

Perceptions and attitudes to sustainable roundworm control by European sheep farmers

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Abstract

The sustainable control of gastro-intestinal nematodes remains one of the main perennial endemic disease pressures that farmers face with infections impacting on health, welfare and production efficiency of livestock. For over 50 years parasite control strategies in many countries relied heavily on suppressing nematode populations with frequent use of broad-spectrum anthelmintics. The effectiveness and availability of products across Europe is markedly different, but the need to maintain sustainable productivity is universal. As part of an EU COST action (COMBAR; https://www.combar-ca.eu) a questionnaire was disseminated to sheep farmers from European countries to gather information on: 1) farmer demographics and enterprise characteristics 2) general roundworm control/anthelmintic resistance attitude statements 3) knowledge and understanding questions 4) attitudinal statements regarding parasite control recommendation and 5) parasite control behaviours.

Completed questionnaires were returned by over 2300 respondents from nine countries across Europe: Austria, Greece, Italy, Netherlands, Norway, Portugal, Spain, Switzerland and Wales. Descriptive analysis indicated the perception of roundworms as a major problem on farms is lower in southern Europe compared to central and northern Europe, a similar pattern occurs when examining how roundworms rank in comparison to other endemic diseases.

Veterinarians are regarded highly by all nations universally as trusted brokers of advice. Direct communication (in-person or over the phone) remains the preferred format for receiving information on roundworm control, but other formats such as paper articles (magazines, leaflets), online publications and video-clips/podcasts/webinars are equally important sources in northern/central European countries, but were not as favoured in southern Europe.

The data will be further analysed and used to develop a conceptional framework facilitating targeted communication strategies across Europe.

Presenting author biography

I am a Principal Scientist at Moredun Research Institute investigating various aspects of sustainable parasite control in livestock. I have a keen interest in all facets of anthelmintic resistance research, particularly in areas around the detection and management of anthelmintic resistance in roundworms of livestock and stakeholder engagement.

I actively participate in the promotion of best practice roundworm control in livestock and my work has been used to inform and update government, levy board and industry led initiatives (e.g. Sustainable Control of Parasites of Sheep; SCOPS and Control of Worms sustainably; COWS) on the best practice advice.

O-2089

Barriers and incentives for uptake of diagnostics for sustainable worm control by European dairy cattle farmers

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Abstract

To mitigate emerging anthelmintic resistance in cattle, sustainable worm control strategies should be adopted, such as the use of diagnostic methods to take informed treatment decisions. A multi-centre study was set up to understand the factors affecting European farmers' adoption of diagnostics and to gauge for differences between regions. A conceptual framework was developed, based on theories in the field of behavioural psychology and health psychology and insights from a previous study in Belgium, and validated through a questionnaire survey in different European countries. Three models were estimated and validated through structural equation modelling, which allows us to describe general trends and differences between Northern- (Norway), Central- (Austria and Germany), and Southern- (Italy) Europe. Northern and Central Europe showed similar trends that align with previous studies. Risk perception of anthelmintic resistance had no influence on the adoption intention of diagnostics, a positive influence was found for attitude towards diagnostics and subjective norms (i.e., perceived opinion of others), and a negative influence of attitudes towards anthelminthics. Additionally, the default bias (i.e., perception of the current treatment) had an indirect effect on adoption intention through attitudes. Southern Europe's data deviated from previous findings, presenting a positive effect of the perceived severity of the risk for anthelmintic resistance on adoption intention, and perceived behavioural control of adopting diagnostics. Finally, for Northern Europe, we were able to include a measurement of current behaviour in the model, by combining self-reported practices with diagnostics.

A direct positive effect of descriptive norms (i.e., perceived behaviour of others) on farmers' behaviour was detected, while no other effects were found (i.e., intention or default). This discrepancy with the model estimating farmers' intention to use diagnostics questions the applicability of cognitive models using behaviour intention as a proxy to predict farmers' current behaviour.

Presenting author biography

Edwin Claerebout is an EBVS® European Veterinary Specialist in Parasitology (dipEVPC) and professor in parasitology at the Faculty of Veterinary Medicine of Ghent University, Belgium, where he lectures on parasitic diseases in domestic animals. His research interests are parasitic diseases in livestock, in particular sustainable control of gastro-intestinal parasites and psoroptic mange in cattle.