Roundworm infections are ubiquitous in grazing ruminants, threatening the health, welfare and environmental impact of livestock. Infections are typically controlled using anthelmintics but resistance to the few available compounds is increasing, limiting control options on-farm. A recent study involving 77 efficacy tests on commercial sheep farms in the UK, identified reduced efficacy to all four drug classes tested. An egg reduction of >90% was observed in only ~30% of tests, highlighting the scale of the problem facing sheep producers. In cattle, anthelmintic resistance is at an earlier stage; estimates suggest ~50% of *Cooperia* worms are resistant to the most used drug class (macrocyclic lactones). Benzimidazole resistance has only recently been identified in cattle roundworms but a genotyping study found ~4% of roundworms carrying the mutations coding for resistance, including multiple worm species.

Slowing the development of anthelmintic resistance is important to safeguard control options for the future, and this can be achieved through targeted treatment. Diagnostic tools have been developed to assist farmers in assessing which animals require treatment and when. Faecal egg counts are the primary tool available, providing a snapshot of the parasite population within infected animals, these can be used in several ways to identify strategic times to treat and to test the efficacy of interventions. Alternatively, weight gain and movement sensors can be useful indicators of productivity, identifying individual animals which are not performing optimally. Decision support tools also play a role in supporting stakeholders in understanding and implementing recommended on-farm practices.

Sustainable control of roundworms can best be achieved using a combination of diagnostic tools, targeted anthelmintic treatment and alternative control strategies, maintaining production efficiency and reducing greenhouse gas emissions from grazing livestock. Despite the availability tools, uptake remains relatively low. Understanding the barriers to uptake of recommendations and developing effective communication methods will therefore be key in promoting sustainable practices on-farm to meet ambitious industry goals.