



Prototype: Targeted Selective Treatment (TST) using weight data to optimize roundworm control for grazing lambs

Roundworm parasites cause production loss in grazing animals and are controlled by wormers (anthelmintics). Over-reliance on wormers has resulted in drug-resistant parasites, meaning treatments are less effective, and there are additional concerns around their impact on biodiversity and the environment. So, it is critical that treatment moves away from regular treatments to the whole group, to only treating individual animals that need worming. The Moredun pilot farm uses an algorithm to determine if grazing lambs are underperforming, and therefore need a wormer. Lambs are tagged with low frequency electronic identification (EID) tags (PA16) and EID-enabled weigh scales (PA17) are used to link performance data to individual animals. Weight gain targets can then be determined, using the algorithm, with knowledge of the amount of feed available to the animals. Lambs are run into the weigh crate, which each links individual with their weight and weight gain target. Automatic shedding gates can be used to draft underperforming lambs that need wormer away from those that are continuing to perform well. It is important that farm equipment is checked to ensure compatibility between devices and calibrated regularly. For farmers, this system provides a simple and cost-effective way to collect data on individual animal growth and wormer requirement, enables prompt treatment, maintains animal welfare optimizes wormer, which keeps wormers effective for longer on farms.



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