

Managing which animals to treat (part flock/mob treatment)

Some animals in the flock or mob can be left untreated, allowing a pool of unexposed parasites to produce eggs that are passed out on to the low-contamination pasture.

It has been suggested that, as a rule of thumb, leaving about 10% of the flock untreated can delay AR, providing resistant allele frequency is relatively low. However, to correctly estimate the proportion of animals to be left untreated so there is a significant effect on AR, a farm specific model would probably be needed. This would take account of parasite population (composition and size), level of AR and the farm conditions (climate and pasture management).

Targeted selective treatment (TST)

Selection of animals to be left untreated is aimed at identifying those animals that exhibit greater resilience, meaning the ability to thrive despite parasitic challenge, or those animals with the lowest worm burdens (higher resistance), that can safely be left untreated. These animals should be able to cope with worms without needing anthelmintic treatment. Selection can also be done randomly, but this has been shown to have a negative effect on animal performances and could potentially impact on animal health and welfare.

See <u>Chapter 2. SCOPS Principles, section 2.2 Preserve Susceptible Worms</u> for full details on this.