Evidence mounting for targeted worm treatment in sheep

Evidence is mounting that selective treatment of adult sheep to control worms can work under south east Australian conditions and help prevent the build-up of drench resistance, following the completion of year one of a two-year field trial.

A producer demonstration site near Hamilton led by veterinary parasitologist Dr Ian Carmichael from SARDI and supported by Meat & Livestock Australia (MLA) and the South West Prime Lamb Group, is a continuation of eight years of work under the Cooperative Research Centre for Sheep Industry Innovation (Sheep CRC).

“Targeted Treatment is the broad concept that worm control can be relaxed in sheep able to tolerate worms, namely adult ewes in good condition,” Dr Carmichael said.

“The concept is not new and was developed by the Sheep CRC in Australia with extensive field trials in Western Australia and South Australia.

“The current study is a proof of concept for Victoria – that is, we want to show that Targeted Treatment can work under Victorian conditions which are different to what we have worked with in Western and South Australia.

“The key driver behind its use is to defer drench resistance, which is a big problem for Victorian producers. I believe that any potential production loss is more than outweighed by deferral of drench resistance and reduced drench use,” Dr Carmichael said.

A key component of the Victorian trial is a matrix developed by Dr Carmichael that indicates drenching trigger points based on critical faecal worm egg counts (WEC).

When used in combination with body condition scoring and observation of scouring animals, the matrix provides a guide on the proportion of the mob that needs to be drenched.

“The matrix is still being tested but it has held well over the first year of the study and when we have a second year of results this will help us refine it further,” he said.

“Throughout the trial we have also followed up treatments after 14 days to measure bulk egg count and the level of paddock contamination, and the participants have been happy with the results so far. But this is an experimental check and would not be required if the system works as we anticipate.

Producer and vet Dr Leo Cummins is the leader of the South West Prime Lamb Group and has taken his participation in the trial a step further by moving his entire adult ewe flock of 1500 into his targeted treatment program.

“The key issue here is the threat of drench resistance - I now treat adult ewes based on WEC only, with the assistance of worm count labs in Hamilton, Wickliffe and at SARDI.

“Before I joined the study, I had been following the research on targeted treatment by the Sheep CRC for many years, and with my own background in parasitology as a vet with the DPI I was very confident that it would work.
“I have had evidence of resistance on this farm as well as in the district to one or more classes of drench and we need to do everything we can to defer resistance.

“I am happy with the results to date, but we need more than one year of results to get the full picture.

“Targeted treatment needs to be fitted to the environment you are dealing with, but the concept is applicable anywhere with careful monitoring of the flock and the right professional support,” Dr Cummins said.

• For more information on worm control and the targeted treatment research, visit www.wormboss.com.au

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