New findings to consider when dosing ewes with Moxidectin at lambing

Moxidectin is the active ingredient in Cydectin and Zermex. These group 3ML wormers are long acting because moxidectin is stored in body fat. When given to ewes around lambing this attraction to fat means that some of the moxidectin ends up in the milk. An Australian trial (Dever and Kahn) found that the worm egg counts of lambs fell by 51% in the 7 days after their dams were wormed. The egg counts of lambs sucking untreated ewes increased. A more detailed New Zealand study (Leathwick et al) involved giving twin lambs a weekly dose of worm larvae between the ages of 4 and 10 weeks. One twin received larvae known to be resistant to moxidectin i.e. not killed by moxidectin. The other twin was given larvae susceptible to moxidectin i.e. able to be killed by moxidectin. Half the lambs sucked ewes that had been treated with moxidectin 2% 10 days before lambing and the other half sucked untreated ewes. The lambs were killed at 12 weeks of age and the number of worms in their stomachs counted. Key findings were:

• Moxidectin could be detected in the blood of lambs sucking treated ewes until they reached 8 weeks of age.
• The number of moxidectin susceptible worms found in the stomachs of lambs sucking treated ewes was 70% less than the number found in the stomachs of lambs sucking untreated ewes.
• There was no difference in the number of moxidectin resistant worms found in the stomachs of lambs sucking treated ewes compared to the number found in the stomachs of lambs sucking untreated ewes.

At first glance this might seem like a good thing – the lambs are receiving wormer without needing to be dosed. **In fact the transfer of moxidectin in the milk means that the lambs are being under dosed which will select for resistant worms.** The recent WAARD Project looked at the levels of wormer resistance on 47 Welsh farms. Overall 19% of flocks were found to have evidence of moxidectin resistance. This figure rose to 30% for the 30 farms tested in spring/summer 2015. Further pressure on the 3ML group needs to be reduced as the majority of farms already have worms resistant to the 1BZ (white) and 2LV (yellow) wormer groups.

There is increasing evidence that ewes in good condition are able to control their own worm burdens, even at lambing time, and don’t need to be treated. Nutrition is key and suppling extra protein is important. This is easily done in late pregnancy and early lactation by feeding 100g of soya per lamb carried. For ewes in good condition replace the equivalent amount of concentrates. For thin ewes feed the soya in addition to the concentrates.

If you are going to use moxidectin then consider the following:

• Do not treat all ewes but target treatment e.g. to thin animals.
• Monitor egg counts before and after lambing to see if treatment is required.
• If ewes are going to be grazing low risk fields after lambing (few or no worm larvae present – reseeds, not grazed by sheep for 12 months, extensive hill grazing) do not use moxidectin.

• Ideally don’t use moxidectin every year at lambing.

• Use moxidectin drench in preference to the 2% LA injection

• Monitor the effectiveness of 3ML wormers as part of your flock health plan.

• If you are not already using the new 4AD (Zolvix) and 5SI (Startect) wormer groups talk to your vet/advisor about introducing these products.

References:

Dever and Kahn, Veterinary Parasitology, 2015, 209, 229-234, Decline in faecal worm egg counts in lambs suckling ewes treated with lipophilic anthelmintics: Implications for hastening development of anthelmintic resistance.
