

## **Resistant Worms**

### **A deadly problem in goats & sheep**

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One of the most vexing problems facing the sheep and goat industry worldwide is the continuing battle against internal parasites – in particular the worms that either feed directly on the animal's blood or drain its resources leading to weight loss, anemia, diarrhea and death.

The tendency has been to rely heavily on deworming medications for treatment and several drugs have been used for many years. One repercussion of this has been the development of resistant worms, in some cases to multiple drugs. In Jamaica, resistance has been seen to all the available worm medicines – ivermectin (Ivomec®, Ivocip®), fenbendazole (Panacur®), albendazole (Benvet®), and levamisole (Levox®, Levvet®).

When an animal is dewormed, a very small percentage of the worms survive and reproduce. With each successive worming with that drug, the percentage of resistant worms increases, eventually reaching a point where the drug does not kill enough to have an impact. The farmer will notice some of his animals deteriorating and some may die. Investigation by a veterinarian will reveal severe worm infestation as the cause.

Tackling this problem involves more careful use of the available drugs along with better management practices.

- Instead of frequent mass deworming, select animals for deworming based on need (pale eyelids, soft faeces, weight loss)
- Deworm all pregnant animals shortly before kidding and repeat afterwards
- After deworming, collect fresh faecal samples and submit to a vet to check the level of worm eggs
- If possible, rotate grazing areas after deworming to reduce re-infection
- Send animals out to graze later in the morning when the sun's heat drives infective worm larvae into hiding
- Keep pens as clean as possible - remove faecal material and keep feed and water troughs free of contamination
- Remove animals that get heavily infested and respond poorly to treatment from the herd and do not keep their offspring for breeding.

There is another wormer on the world stage called monipantel (Zolvix®) that claims to beat the problem of resistance, but this is not available in Jamaica and may not be for some time to come.