

What is anthelmintic resistance?

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Anthelmintics (wormers) are medicines used to control parasite infections in livestock. In recent years, these medicines have become less effective where parasitic worms have developed resistance against them. Anthelmintic resistance is said to be present when worms survive a dose of wormer that would normally be expected to kill them.

Resistance against wormers is inherited by the worms' offspring and certain management practices can increase the risk of it becoming a problem on farm. With each wormer treatment given to animals, susceptible worms are killed and the resistant worms survive to lay eggs, increasing the population of resistant worms on the farm. The more frequently worming treatments are carried out, the greater the risk of anthelmintic resistance increasing.

There are three main classes of wormers used against stomach/gut worms in cattle. These are the white drenches (1-BZ), yellow drenches (2-LV), and clear drenches (3-ML). Once worms are resistant to a medicine in a particular class, then all products in that class will be less effective. For example, if a specific brand of clear drench no longer seems to be working, switching to another brand of clear drench will probably make no difference. It is always best to test if the wormers that are used on-farm are still effective. Your veterinary practitioner can advise on how best to test and which products to use.

1-BZ	Benzimidazoles and probenzimidazoles (which include albendazole, fenbendazole, oxfendazole, mebendazole) also known as 'white drenches' but can differ in colour.
2-LV	Levamisole also known as 'yellow drenches'.
3-ML	Macrocyclic lactones (which include abamectin, doramectin, ivermectin, moxidectin) also known as 'clear drenches'.

What can be done to minimise the risk of anthelmintic resistance on my farm?

Prevent resistant worms coming onto the farm by following a quarantine and treatment protocol. Placing bought-in animals in quarantine away from the main herd is also beneficial to reduce the risk of introducing other diseases.

Develop a farm parasite control plan to treat only when needed. Consider which products and timing of treatments would be best for your farming system. Do not dose unnecessarily.

Reduce the need for wormers by using pasture management and grazing strategies to your advantage. For example, graze young stock that are at high risk of disease from worm burdens on low-risk pastures such as reseeded pasture or silage aftergrass.

Treat correctly using good dosing technique. Dose based on the weight of the heaviest animal in the group. Follow the manufacturers' instructions for dosing and withdrawal periods. Always read the package insert before dosing.

A brief video explaining anthelmintic resistance can be found here.

