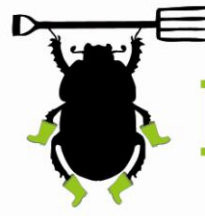


# FACT SHEET 2:



Dung  
Beetles  
Direct

## SUSTAINABLE USE OF WORMERS & OTHER PARASITICIDES FOR CATTLE, SHEEP & HORSES

**Dung Beetles** are nature's bin men! They clear-up dung, fertilize and aerate soils and may control livestock parasite burdens on your pastures.

Unfortunately, some wormers and other parasite control treatments (parasiticides) are toxic to Dung Beetles and our routine animal treatment with these chemicals may be destroying your Dung Beetle population. However, there are simple and easy ways in which you can manage parasites in your livestock to reduce impacts on Dung Beetles and other wildlife and reduce parasite resistance.

### 1. ONLY TREAT ANIMALS THAT HAVE A PARASITE BURDEN

Check for parasite burdens AND parasite resistance with faecal egg counts and blood tests. Your local vet, equine- or farm stores could do this for you. Depending on the results, your vet can advise on whether treatment is required. But remember to ask your vet to think about Dung Beetles too!

**! Most mature cattle should not require any routine treatment for intestinal parasites (worms) as they should have developed natural resistance !**

### 2. TRY TO USE CHEMICALS LESS TOXIC TO DUNG BEETLES

All parasiticides are labelled with their active ingredient. Just take a look on the back of the box or on the instruction leaflet. The order of toxicity to Dung Beetles of the chemical class you will see is:



\*SPs (Synthetic Pyrethroids) include **Deltamethrin, Permethrin, Cypermethrin & Alphacypermethrin**

\*\*IGRs (Insect Growth Regulators) include **Dicyclanil, Cyromazine**

The following chemicals are unlikely to impact Dung Beetles:



\***Albendazole, Fenbendazole, Levamisole, Mebendazole, Oxfendazole, Ricobendazole & Triclabendazole**

No data are currently available for **Derquantel** or **Oxyclozanide**

**Diazinon** is an OP (Organophosphate) used in fleece dips. It is excreted in the urine, so whilst it is unlikely to impact Dung Beetles, it may have a negative impact on beneficial soil invertebrates.

### **3. IF POSSIBLE, KEEP ANIMALS OFF PASTURE FOR AT LEAST 72 HOURS AFTER TREATMENT**

This means that the high percentage of toxic chemicals that are excreted in dung soon after treatment, have much less impact upon Dung Beetles and other beneficial invertebrates. Products not toxic to Dung Beetles may still be harmful to other beneficial animals and fungi in the soil and in water courses. Therefore, best practice is to keep animals off pasture after any treatment. If you can't keep them in, **do not** move animals onto clean pasture immediately after treatment, as this will select for parasite resistance.

### **4. DO NOT UNDER-DOSE**

Weigh animals, don't guess. Wormers and other parasiticides are not effective if the animal is not given the correct dosage. Under-dosing is an easy way to accelerate parasite resistance.

### **5. THINK ABOUT ADDITIONAL OPTIONS (e.g. ROTATE & REST)**

If possible, rotate stock around fields and allow fields to rest for at least 3 weeks between grazing with the same animal species. Rotate animal species around pastures (e.g. follow cattle or horses with sheep). Stock and pasture rotation can help break parasite lifecycles and helps to reduce the build-up of parasite resistance to parasiticides. Avoid treating all stock with parasiticides at the same time.

### **6. DEVELOP A PARASITE CONTROL PLAN WITH YOUR VET**

Correct parasiticide rotation will help slow down parasite resistance. By using parasiticides less toxic to Dung Beetles during the grazing season you will also protect your Dung Beetles.

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