**SECTION 3. What Dewormer Should I Use and How Should I Use It Successfully**

The best dewormer for your flock depends on the parasite burden, the species of parasites, the stage of production (ewe vs lamb vs. ram) and the possible resistance of the parasites. The following is for informational purposes only; it is important that you consult your veterinarian for information specific to your flock and needs.

**Figure 1 Legend: Administering a dewormer with a syringe**

**Not all dewormers are the same**

Dewormers are classified into different groups based on the type of molecule. Each class kills or expels worms in a different way. For example, Safe-Guard® (fenbendazole) and Valbazen® (albendazole) are in the benzimidazole class. They kill parasites by disrupting the digestive system of the worm. Ivomec® (ivermectin) and Cydectin® (moxidectin) are in the macrocyclic lactone class. They act by paralyzing the worms.

When parasites become resistant to one drug within a class, they are often resistant to all drugs in the same class. This is important when considering using a combination of drugs, as the combination should include dewormers from different classes.

**These are the dewormers commonly used in Canada, together with dosage and withdrawal time**

**Figure 2. Legend: Summary of dewormers commonly used in Canada**

**Figure 3. Legend: Dose and withdrawal time of dewormers commonly used in Canada**

**Successful deworming and what to check if treatment fails**

**Choose the correct dewormer**

Different dewormers work better against some worms than others. For example, Flukiver is useful for the treatment of animals with a high burden of Haemonchus contortus (the barber’s pole worm). However, it is not effective against the worms that cause parasitic gastroenteritis such as Teladorsagia circumcincta (the brown stomach worm).

Pour-on dewormers are not very effective in sheep. Do not use injectable products as drenches.

Be sure to consult with your veterinarian to select a dewormer that best addresses the situation on your farm.

**Follow all label dose recommendations and/or your veterinarian instructions**

**Figure 4 Legend: Use a scale to dose according to the weight**

It is important to follow the instructions printed on the label of the dewormer where dosage is calculated by the weight of the animal. It is best to use a calibrated livestock scale to accurately measure the weight of individual animals and dose accordingly. Using a dose based on estimated weight of the average ewe and adding a little more for the heavier animal and a little less for the lighter ewe can often lead to under-dosing of some animals. If a scale is not available, estimating the weight of the heaviest ewe and using this dose for the other ewes will prevent under-dosing. This is safe for most dewormers, but you should consult your veterinarian on the best strategies for accurate dosing for the drug you are choosing to use and in your particular situation.

If at any time a few drops fall out of the sheep’s mouth be sure to give a little more dewormer so that you are not under-dosing.

**Use correct equipment**

**Figure 5 Legend: Use the correct syringe to deliver the drench**

When deworming your animals with a drench, be sure to use the correct equipment. A purpose-built drenching syringe or drench gun is the best and most accurate tool to use for delivering a drench. Drenching syringes/guns are made to slide over the back of the sheep’s tongue and deliver the dewormer near the back of the animal’s throat. Always check the syringe/gun is delivering the right amount before you drench. Syringes used for subcutaneous or intramuscular injections are not designed for drenching and can lead to inaccurate dosing.

**Be sure to follow the label storage instructions**

**Figure 6 Legend: Make sure the dewormer is correctly stored and not passed the expiration date**

Failure to do so may result in degradation of the drug and decreased deworming effectiveness over time. For example, for best results, Flukiver® must be stored at temperatures below 30°C, should be protected from light exposure and should be discarded after 3 months following opening.

**Pasture management to prevent reinfection**

Dewormers, provided they are working properly, kill the parasites inside the animal. However, most dewormers are only short acting and do not provide ongoing protection from re-infection. So, if sheep remain on pastures that are heavily contaminated with infective L3 larvae after they have been dewormed, they will continue to ingest larvae, which take just 2-3 weeks to develop into adult worms. Consequently, if animals continue to be in poor condition or have clinical signs several weeks after dewormer administration it may be due to re-infection. In these circumstances, it is important to move sheep on to less contaminated pastures. (Link to Section 5)

Anthelminthic resistance occurs when gastrointestinal roundworms undergo genetic changes that allow them to survive exposure to dewormers. This is now a major problem in western Canada and is discussed in more detail in the next section.

**References:**

SCOPS. <http://www.scops.org.uk/internal-parasites/treating-correctly/>