

Assessing deworming effectiveness in your client's sheep flock

Looking for volunteer flocks in Saskatchewan!

Background: Over recent years, researchers at the University of Calgary (Drs. Michel Levy and John Gilleard) and the Western College of Veterinary Medicine in Saskatoon (Dr. Fabienne Uehlinger) have assessed the level of internal parasites and anthelmintic efficacy in Alberta and Saskatchewan sheep flocks. Results suggest that many Saskatchewan and Alberta sheep flocks have high parasite burdens and that deworming protocols are frequently ineffective. Last year in Saskatchewan, 4/5 flocks in which we assessed anthelmintic resistance with a fecal egg count reduction test had resistance against fenbendazole and/or ivermectin and producer-conducted treatments failed to sufficiently reduce fecal egg counts post-treatment in 4/6 flocks. This year, we are able to continue the study, thanks to the assistance of the Alberta Meat and Livestock Agency (ALMA) and the University of Saskatchewan but need your help in making it happen!

What: If your sheep clients have **20* or more ewes** and are interested in knowing their sheep's parasite burden and whether their deworming protocol is effective, please make them aware of this study and ask them to contact us (information below). As part of the project, we ask producers for consent to share their flock's results with you, their regular veterinarian. If such consent is given, then we will communicate all results to you.

In return for their participation: Producers will receive free information about the internal parasite burden in their flock and whether their deworming protocol was effective. We will also determine the predominant parasite species present in the flocks pre- and post-treatment and compare to the pre- and post-treatment fecal egg counts. This will give us more detailed information about the specific efficacy of the deworming product and protocol used.

How: Interested producers will be asked to conduct an on-farm deworming assessment (OFDA). Fecal sampling kits will be mailed to them. Fecal samples should be collected from about 20 ewes pre- and again 14 days post-deworming with a product of their choice. Ideally, this will take place 5-6 weeks after the flock has been onto pasture. Participating sheep should not have been dewormed within 8 weeks of first sample collection. Fecal samples will be sent by pre-paid courier to our laboratory for analyses. If the farm is suitable for a controlled assessment of the efficacy of different deworming drugs through a fecal egg count reduction test we may be interested in visiting that farm specifically to conduct that part of the project (time permitting).

The ability to monitor different flocks, parasite burdens and deworming efficacy over several years in Saskatchewan and other parts of western Canada helps us to get solid information on which to base parasite management recommendations. This is important to try and maintain efficacy of current deworming drugs and to help the industry remain sustainable.

We are happy to hear from past as well as new participants!

Thank you for your assistance in this project. If you have any questions or concerns, please don't hesitate to contact the study coordinator, Courtney Orsen, at the University of Saskatchewan.

Courtney Orsen: sheep.parasites@usask.ca or phone: 1-306-966-5480