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Small Ruminant Parasite Control: Testing & Interpretation of Results

Different Tests for Different Information: What do you need to know?

- Intestinal Parasite Screen by Centrifugation is usually done as a screening tool to identify the types of different parasites present. These include different types of strongyles (Hemonchus, Ostertagia, Nematodirus), Strongyloides, whipworms, tapeworms, coccidia, and sometimes lungworm larvae. This test can be done on "pooled' samples, when we just need to know the types of parasites present in a group of animals. The test can also be done in a way to provide a "quantitative" result (the "Wisconsin Method" provides an estimate of the number of each type of eggs per gram of feces), rather than just "negative/light/moderate/heavy".
- The McMaster's Test is the most quantitative test for fecal parasite analysis, because it provides an estimate of the number of eggs per gram of feces for each type of parasite seen. For some parasites (mainly Hemonchus), this is an accurate reflection of the level of adult worms in the animal, which can guide treatment decisions; however, this is not always the case. Also, different levels may be "acceptable", depending on the specific parasite involved. The McMaster's test is also used to measure effectiveness of treatment, by measuring Fecal Egg Count Reduction following use of a deworming medication.
- The **Baerman Test (or "Lungworm Test")** is run on a fecal sample, but in a completely different way from other fecal tests. Lungworms live in the lungs of infected animals, but are coughed up, swallowed, and passes in the feces. Live larvae are sometimes found on regular fecal tests; however, if lungworms are suspected, an overnight Baerman Test is run to confirm their presence. Usually this test is only run after consultation with a doctor.

Interpretation of Test Results: What do these results mean?

- Patient Information (including species and age) are very important to correlate with any test result and to guide treatment decisions. Different species (goats, sheep, llamas, deer) may have different levels of infection at which problems occur.
- Clinical Signs (weight loss, diarrhea, coughing, and/or anemia) are also very important to correlate with any test result and to guide treatment decisions. Different parasites are associated with different symptoms of disease.
- **Deworming History** is very important to proper interpretation of test results. Both type of treatment and timing of any treatment matter. A test run 7-10 days (maximum 14 days) following deworming treatment can help determine the efficacy of that treatment, especially when compared to pre-treatment test results.

General Guidelines for Treatment Decisions: What do I do now?

- A "negative" test result is usually not the goal, except in the case of lungworm testing.
- o < 500 EPG (Eggs Per Gram): For many situations, this is an acceptable level of shedding;

under today's guidelines, usually not an indication for treatment.

- \circ 500 1000 EPG: Borderline, may or may not require treatment, depending on parasite and clinical symptoms.
- > 1000 EPG: Potentially high level, may require treatment (especially lactating females and youngstock).
- >2000 EPG: High level, likely associated with clinical symptoms Treatment indicated in most cases.

Note: In most cases, the results for each parasite type must be interpreted independently.

Different parasites have different levels of shedding which are considered significant.

Let a doctor help interpret results and formulate a treatment strategy for your animal(s).