

National Animal Health Monitoring System (NAHMS) Internal Parasite Report

Date of report: 11/1/2019

Parasite test results for NAHMS ID: 99999

Dear Participant,

Thank you for participating in the parasite portion of the NAHMS Goat 2019 Study. This report contains the results of the internal parasite testing performed on the goats at your operation. Consider sharing these results with your veterinarian so that they can assist you in determining if you a need to modify your deworming protocols.

If you have questions about the accuracy of your results, please contact Dr. Alyson Wiedenheft, the NAHMS biologics coordinator, at (970) 494-7290 or Alyson.M.Wiedenheft@aphis.usda.gov.

Overview of Parasite Testing:

Control of internal parasite infection in goats is considered an essential aspect of routine management. Internal parasite control is based both on good husbandry and the use of anthelmintics. The first step in an effective deworming program is to determine the level of infection and the type of internal parasites on the goat operation. Trichostrongyles (a family of stomach worms, including *Haemonchus contortus*- the “Barber Pole Worm”) are considered the most important internal parasites in goats industry. Specifically, *Haemonchus contortus* infections are especially dangerous to goats.

Fecal Egg Count (FEC), Egg Culture, and Interpretation:

These results describe a baseline (pre-deworming) and post-treatment (post-deworming) fecal egg count (FEC) for trichostrongyles reported as eggs per gram (EPG) at the animal level. An FEC is calculated for each individual animal, and is used to estimate the parasitic load. For this study, a low FEC is considered to be less than 300 EPG, a moderate FEC is between 300-1000 EPG, and a high FEC is greater than 1000 EPG. The pre-deworming samples were also cultured to differentiate the trichostrongyles eggs.

Fecal Egg Count Reduction Test (FECRT) and Interpretation:

A reliable method for determining the efficacy of anthelmintics on internal worm parasites in goats is the fecal egg count reduction test (FECRT). The FECRT given in this report is calculated at the operation level by comparing the average of all the goats on the operation with a moderate or high **pre-deworming** FEC and with their average post-deworming FEC. The calculated FECRT percentage reflects the effectiveness of the dewormer used at your operation.

TRICHOSTRONGYLE RESULTS:

Individual Goats Results:

Sample #	Goat name/ID	Baseline FEC (EPG)	Baseline Culture	Post treatment FEC (EPG)	Dewormer used
1	Patty	0	NA	0	Ivermectin Paste 1.87%
2	Alice	5	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
3	Jackie	1000	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
4	Willa	2490	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
5	Jane	1435	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
6	Bonnie	5	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
7	Samantha	0	NA	0	Ivermectin Paste 1.87%
8	Cammie	0	NA	0	Ivermectin Paste 1.87%
9	Jill	0	NA	0	Ivermectin Paste 1.87%
10	Suzy	5	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
11	Mel	2004	NA	0	Ivermectin Paste 1.87%
12	Jasper	0	NA	0	Ivermectin Paste 1.87%
13	Katie	1035	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
14	Fannie	5	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
15	Helen	0	NA	0	Ivermectin Paste 1.87%
16	Lemon	0	NA	0	Ivermectin Paste 1.87%
17	Rascal	0	NA	0	Ivermectin Paste 1.87%
18	Trisha	5	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
19	Vicki	10	<i>Haemonchus contortus</i>	0	Ivermectin Paste 1.87%
20	Wendy	0	NA	0	Ivermectin Paste 1.87%
21	Apple	0	NA	0	Ivermectin Paste 1.87%

Operation Results:

Pre- and post-deworming FEC results were used to calculate your operation level FECRT percentage.

Trichostrongyles FECRT: 100%

FECRT Interpretation (EFFECTIVE(>95%)): Deworming using the product listed was **effective** in reducing trichostrongyles egg counts based on fecal egg count reduction test results across all the tested goats from which samples were submitted.

FECRT Interpretation (SUSPECT (85-95%)): Deworming using the product listed was **suspect ineffective** in reducing trichostrongyles egg counts based on fecal egg count reduction test results across all the tested goats from which samples were submitted. Lowered efficacy of the deworming procedure could be due to under dosing, failure of the goat to consume the dose of dewormer given, inadequate storage conditions of product, expiration of product or due to resistance of the trichostrongyles on your operation to the product used. You may want to share these results with your veterinarian so they can advise you on deworming protocols for your goat.

FECRT Interpretation (INEFFECTIVE (>85%)): Deworming using the product listed was **ineffective** in reducing trichostrongyles egg counts based on fecal egg count reduction test results across all the tested goats from which samples were submitted. Lowered efficacy of the deworming procedure could be due to under dosing, failure of the goat to consume the dose of dewormer given, inadequate storage conditions of product, expiration of product or due to resistance of the trichostrongyles on your operation to the product used. You may want to share these results with your veterinarian so they can advise you on deworming protocols for your goat.

FECRT Interpretation (Inconclusive): Because the pre-deworming fecal egg counts were very low on all/most of the goats from which samples were submitted, the efficacy of the current product used could not be calculated. In order to calculate a reliable fecal egg reduction test result, the pre-deworming egg count on at least several of the goats needs to be above 300 eggs per gram.

FECRT Interpretation (Inconclusive): Because several different deworming products were used on the sampled goats, we were unable to determine the effectiveness of each product used. Testing using the Fecal Egg Count Reduction Test (FECRT) using a similar product on all tested goats in the future may allow for interpretation of the efficacy of the product used.