Samples from 6 to 10 (more is better) sheep or lambs are pooled into one sample. Several different analyses will be performed, so collect as much feces as possible from each animal.

**IT IS PREFERABLE** to have Southern states collect for fecal parasites earlier in this time period and the Northern states collect later when the weather is warmer.

**Target sheep suspected of having higher levels of parasites.** Sheep from weaning to 2 years old and lactating ewes within 2 months of lambing are most likely infected with levels sufficient to facilitate testing; therefore, this age group should be targeted. However, samples can be taken from any age animal suspected of having parasites.

**Sheep must not have been treated with a dewormer within 45 days prior to sampling.**

Samples need to be fresh and collected directly from the rectum in order to eliminate environmental contamination of the sample.

**Samples are shipped via UPS**
- Samples must be shipped within 1 day of sampling.
- Samples must be shipped on a Monday through Thursday.

**Collection Materials**

You will have received the items marked with * at the start of the study. Needed for each operation:

- Ziploc vacuum pump*
- Lubricant*
- Two quart-size vacuum Ziploc bags* (or 1 vacuum bag and 1 other bag (e.g., whirlpak)
- Shipping box (e.g., small UPS box)
- The paperwork* consists of:
  - Instructions
  - 2-part carbonless paper submission form
  - A preprinted UPS shipping label addressed to Univ of Georgia.

**Suggested shipping** – Place double-bagged sample in a small sturdy box along with copy of paperwork. Place inside a UPS Laboratory Pak that shows the UN3373 emblem. The Lab Pak can be ordered from UPS by your area office.

If you need materials or have any questions, contact Judy Rodriguez at NAHMS by phone (970-494-7255) or email (judith.m.rodriguez@aphis.usda.gov).

**Submission Form**

- Enter the State, Operation, and date on the submission form. The Kit number is already recorded.
- Record the age for each animal sampled and answer all questions about the operation.
- **On the sample bag**, write in the State, Operation, and Kit number.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0188. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.
Collection Instructions

RECTAL RETRIEVAL

(Yes, this is a picture of a goat, but procedure is same 😊)

To avoid contamination from common organisms on the ground, rectal retrieval is best.

1. Apply lubricating jelly to the glove before entering the rectum.
   ➢ Lightly stroking the rectum might encourage defecation.

2. Retrieve a minimum of 6 pellets per animal, but collect as much as possible.
   ➢ For young sheep with small pellets a min of 10-12.
   ➢ Place ALL samples into one bag.

3. Place pellets in a Ziploc bag from the Vacuum Starter Kit.

4. Continue collecting samples from other sheep using a clean glove for each.
   Place all samples in the same bag. Goal is to collect 100 gm per operation (about size of an orange if clumped together) You will get one test result for the operation.

   Try to catch pellets onto a piece of clean cardboard box or lid. Sheep have a tendency to defecate when they get up and that may be the best time to trail after with a box.

   **Do not collect samples off the ground.**
   Clean, fresh feces are required for analysis.

ALTERNATIVE if you cannot collect the samples rectally.

Prepare the Pooled Samples

1. Knead the bag until individual fecal pellets cannot readily be seen.
   ➢ Add a touch of water if needed to give a consistency of thick paste.

2. Zip the bag closed.

3. Use the vacuum pump to squeeze out excess air.

4. Roll the sample bag up and place into another Ziploc or a whirlpak bag.
   ➢ Again, squeeze out excess air.

5. Write the State, Operation, and Kit number on the bag.
   ➢ Place tape over the vacuum port and zipper to prevent loss of vacuum.

Samples must not be frozen.

Suggested Shipping: Place the double-bagged sample and submission form into a small box. Place the box into a UPS UN3373 overwrap envelope and ship.
Send original submission form your NAHMS Coordinator.
Sheep 2011
Parasite Evaluation Submission Form

Sample should be kneaded and vacuum sealed while still fresh. Once processed, store at room temperature. Ship within 24 hours of collection on Monday through Thursday. If sample cannot be vacuum sealed immediately, store in the refrigerator for less than 24 hours before kneading/sealing and shipping.

<table>
<thead>
<tr>
<th>State:</th>
<th>Operation Number:</th>
<th>Kit Number:</th>
<th>Collection Date: (mm/dd/yy)</th>
</tr>
</thead>
</table>

IF POSSIBLE, COLLECT SAMPLES FROM SHEEP THAT ARE SUSPECTED TO HAVE HIGHER LEVELS OF PARASITES.

1. For each animal sampled, write down the age in years. If under 1 year of age, make it clear the age is months (e.g., 6 months).

<table>
<thead>
<tr>
<th>EXAMPLE</th>
<th>Age</th>
<th>Age</th>
<th>Age</th>
<th>Age</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.5 yrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IF WEANED BUT LESS THAN 1 YEAR, MAKE IT CLEAR THAT THE AGE IS MONTHS.

2. What is the total number of animals you sampled? (Should equal the number of ages listed above) .................................................. ________ head

For the following, write in responses. If zero or none, write in 0. If you cannot answer a question or it is not applicable, please note the reason in the margin.

3. In the pen/area where these samples were taken, how many
   a. unweaned lambs are present? ................................................................. ________ head
   b. weaned lambs to 1 year of age? ......................................................... ________ head
   c. sheep between 1 and 2 years of age? ............................................... ________ head
   d. sheep 2 years of age or older? .......................................................... ________ head

Total sheep in area .................................................................................. ________ total

4. What is the total number of sheep in your flock? ..................................... ________ flock total

Continued on next page.
5. Were any of the following used to select the sheep that were sampled?
   a. Animal showed clinical signs ................................................................. □ 1 Yes □ 3 No
   
   i. **IF YES**, what were the signs?
      - Diarrhea ............................................. □ 1 Yes □ 3 No
      - Weight loss ........................................... □ 1 Yes □ 3 No
      - Poor hair coat ........................................ □ 1 Yes □ 3 No
      - Anemic (based on FAMACHA) ............. □ 1 Yes □ 3 No
      - Other signs ........................................... □ 1 Yes □ 3 No (specify: ________________)

   b. Other reasons sheep were selected for sampling?
      (specify: ______________________________) ............................................. □ 1 Yes □ 3 No

6. Are you using copper wire particle boluses or other nondrug dewormer treatments? ...
   □ 1 Yes □ 3 No
   **IF YES**, please list: ________________________________________________

7. Before today, have these sheep EVER been treated with a dewormer? ............... □ 1 Yes □ 3 No
   **IF YES**, what date were they last treated? (Explain in margin if you don’t know.) ........ mm/dd/yy
   **IF YES**, check all product(s) used the last time they were treated.

   □ 1 Albendazole (Valbazen®), □ 2 Fenbendazole (Safeguard®, Panacur®)
   □ 3 Ivermectin (Ivomec®) □ 4 Moxidectin (Cydectin®)
   □ 5 Levamisole (Tramisol®, Levasole®, Prohibit®) □ 6 Pyrantel (Strongid®)
   □ 7 Morantel (Rumatel®)

   OR LIST HERE: ________________________________________________________

8. Which best describes the management of the sampled sheep during the past 30 days?

   □ 1 Open range (large unfenced acreage)
   □ 2 Fenced range (large fenced acreage)
   □ 3 Fenced farm (cultivated pasture or browse)
   □ 4 Dry lot (pen which does not allow grazing and is not meant for finishing sheep on a high-energy diet for slaughter)
   □ 5 Other (specify: ______________________________________)

**If Producer collected and shipped, the following does not need to be completed.**

How many people in each category helped with the collection of the individual fecal samples?

_____ Fed VMO  _____ Fed AHT  _____ State Gov’t

_____ Producer  _____ Other, specify: ______________________________

Not counting Producer time, how many hours did it take everyone to collect and prepare the samples for shipping: ________ hours

How many round-trip hours did it take for everyone to get to the farm and back: ________ hours

Send Yellow pages with samples to the lab. Send the original to your NAHMS Coordinator.