

PRACTICAL SESSIONS

3 FAECAL (DUNG) SAMPLING

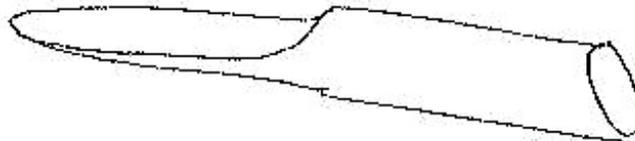
Gareth Bath & Jan van Rensburg

Reason: Mainly egg counts and larval culture or other samples.

Animals: All classes

Methods: After lubrication, the index and middle fingers are introduced into the rectum and rotated. Pellets are caught up by the same gloved hand. Alternately use a specially made device (Faecal scoop tube - also lubricated. It must be the right size, shape and smoothness.).

Samples are put into labeled plastic bags, or for bulk samples, cut off the end of a disposable syringe, and compress faeces into this for a standard quantity of material from each of 10-20 animals in a group.



Training: Demonstration usually sufficient.

Timing: When required.

Equipment: Glove or scooper (carefully made and smoothed – 3 sizes), lubricant

Follow-up: Usually nil.

Risks: Damage to rectum (rough handling)

**FAECAL WORM EGG COUNT
SPECIMENS FOR SHEEP & GOATS
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Purpose: To help evaluate the worm infection status of a herd or flock as well as the contamination rate of a pasture. It can also positively identify the presence of a few worm species. It can thus help to make appropriate worm management strategy decisions.

1. Take the sample from the same type of animal (i.e. all lambs, or all pregnant ewes, etc).
2. Take dung fresh from the rectum, not from the ground.
3. Use disposable glove or special faecal scoop tube (see figure1).
4. Insert gently into rectum. Preferably use water or mild soap as lubricant.
5. Withdraw about 5 pellets per animal.
6. Press this into an old plastic syringe which has had the nozzle cut off (see figure 2).
7. Compact the specimen down and cut or wipe off excess dung so that just 3ml per animal is taken.
8. Put the compressed specimen into a plastic bag.
9. Repeat this process for between 10-20 animals (use the same bag for all specimens).
10. Close plastic bag, squeeze out all air and label with owner, date, flock.
11. Store and transport on ice (not frozen). Use a polystyrene container (or similar) and ice cubes or a cooler pack. Do not store at room temperature
12. Get to the laboratory as soon as possible.

Figure1

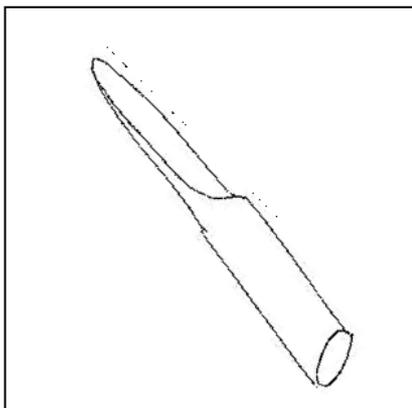
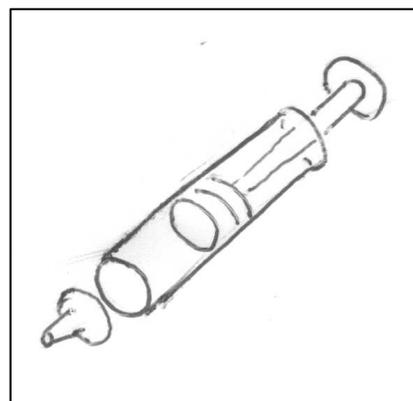


Figure 2



13. Alternately the sample can be vacuum packed (expel all the air from the plastic bag and seal tightly)
14. Vacuum packed samples need not be kept cool. The eggs will last for 7 days or longer at room temperature and can be sent by post.
15. If larval cultures are needed, it is best that a separate sample is collected in a paper packet or perforated plastic bag.

GUIDELINES FOR INTERPRETING MEAN FAECAL EGG COUNTS

Worm type	Mean Faecal Worm Egg Count		
	Low	Medium	Severe
<i>Haemonchus contortus</i> spp.	< 500	1 000 - 5 000	>7 000
<i>Teladorsagia</i> / <i>Ostertagia</i> spp.	< 150	300 - 1 000	>1 500
<i>Trichostrongylus</i> spp.	<150	300 - 1 000	>1 500
<i>Nematodirus</i> spp. *	< 50	100 - 200	> 300

* *Nematodirus* FECs very erratic and untrustworthy

FAECAL EGG COUNT REDUCTION TEST (FECRT)

Purpose: to determine whether the worm species present in a flock or herd at the time of the test are susceptible to the drugs tested.

1. The best animals are untreated weaners. If treated, supply details of what and when.
2. Doing the FECRT is only worth while if there is an infection of worm severe enough to do the test.
3. Determine this by doing an initial bulk FEC on the target flock. Mean FECs of 500 – 1000 epg or more are needed to give worthwhile results.
4. Take dung samples as described in the FEC test.

5. Take a composite (pooled) sample from equal groups of 10 – 20 animal per drug or group to be tested (usually 4). Mark these groups with a temporary marker.
6. Weigh each animal in each group and set the dose exactly according to each weight and the manufacturer's instructions. Starve for 12 hours before for the best results.
7. For most drugs, wait 10 – 14 days (no more and no less) and take a further set of samples from the same animals.
8. Label the samples as for FEC and in addition also the drug or drug group used.
9. Certain long-acting remedies will need longer intervals between the first FEC and the second.
10. Store and transport specimens as for FEC.
11. Have a larval identification done if possible.

NOTE – both the FEC Test and the FECRT require expertise and experience and should not be entrusted to amateurs. Even more so, the interpretation of these tests is best left to experts.

GUIDELINES FOR INTERPRETING THE RESULTS OF THE FECRT *

Reduction in FEC > 95 %	Little or no evidence of AR
80 – 95 %	Still effective, but some concern
60 – 80 %	Serious concern, poor results
40 – 40 %	Ineffective, not advised
20 – 40 %	Extremely poor, cannot be used
0 – 20 %	Totally ineffective

* assuming a predominant infection of *Haemonchus contortus*

THE ABOVE APPLIES TO ROUNDWORMS

Note that flukes (liver fluke, conical fluke) and tapeworms are not covered by the above procedures and tests.

