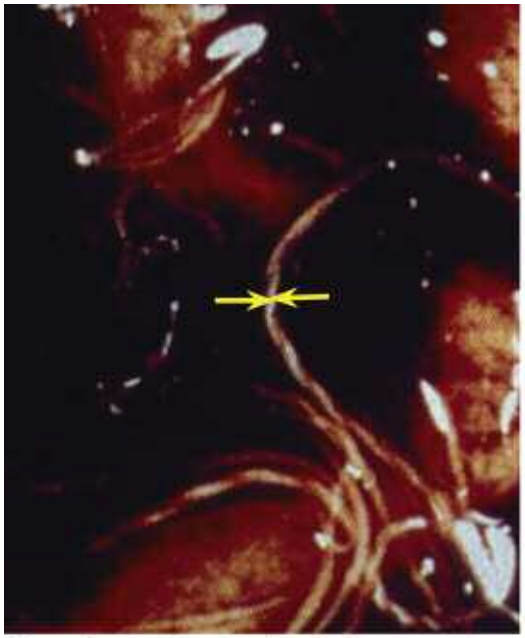

Haemonchus contortus in a sheep's abomasum.

Successful management of sheep and goat parasites will involve a combination of management practices that decrease transmission, and intelligent use of dewormers. This brochure outlines several key features of how to control worms in small ruminants.

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Collaborating Institutions
Fort Valley State University
College of Agriculture, Home Economics, and Allied Programs
Fort Valley, GA

University of Georgia
College of Veterinary Medicine
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Louisiana State University
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The Problem:
RESISTANCE TO DEWORMERS IS ON THE RISE

"Bottle jaw" signals a serious problem.

The Solution:
SMART DRENCHING

Smart Drenching for Sheep and Goats

Gastrointestinal nematodes (worms) are a major threat to grazing sheep and goats in the United States. The 2 most important worms are Haemonchus contortus (barbor pole worm) and Trichostrongylus colubriformis (bankrupt worm). Periparturient females, kids and lambs in their first grazing season are especially vulnerable to worms.

Clinical Signs of Parasitism

- Untriftiness
- Rough hair coat
- Pasty to watery feces
- Bottle jaw (edema under the jaw)
- Pale membranes in inner eyelid (below)

Resistance to all dewormers is increasing in the worm population, so a newer, smarter approach to worm control is needed. The concept of "smart drenching"* addresses ways producers can use dewormers (drenches) more selectively and effectively. The primary goal of "smart drenching" is to balance production needs with the need to preserve the efficacy of available dewormers for as long as possible.

•Thanks to Dr. Des Hennessy, McMaster Laboratory, CSIRO Animal Production, Blacktown Australia, for use of the term, "smart drenching".

Components of Smart Drenching

1. Find out which dewormers work by performing a fecal egg count reduction test or a DrenchRite larval developmental assay.

2. Weigh each animal prior to deworming them. Sheep are drenched on a body weight basis similar to cattle. Double the cattle/sheep dose when deworming goats for all dewormers (except levamisole). Use levamisole at 1.5 times the cattle/sheep dose in goats.

3. Deliver the dewormer over the tongue in the back of the throat with a drench tip or drench gun.

4. Withhold feed 12-24 hours prior to drenching with benzimidazoles (white dewormers such as fenbendazole and albendazole), ivermectin, doramectrin, and moxidectin.

5. Benzimidazole efficacy is greatly enhanced by repeating the drench 12 hours after the first dose.

6. Simultaneously use 2 classes of dewormers if resistance is suspected.

7. Drench only the animals that need treatment! This step reduces dewormer use. Most importantly, untreated animals harbor worms that have been subjected to less selection pressure for drug resistance. These worms will stay more vulnerable to dewormers.

The FAMACHA© System was developed in South Africa to identify severely parasitized sheep and goats. A laminated color chart that shows 5 consecutive grades of conjunctival pallor ranging from 1 (red color; not anemic) to 5 (very pale) is used to score the animals. Only the animals in the palest categories are drenched. This approach decreases the use of dewormers, and allows the producer to identify animals that need frequent deworming to survive.

Stopping the Parasite Life Cycle through Pasture Management

1. Remove small ruminants from pastures for 3-6 months to allow worm larvae on pasture to die off.

2. Alternate or co-graze pastures with horses or adult cattle.

3. Maintain stocking rates of no more than 6-8 small ruminants per acre.