

Basic Herd Health Considerations for Sheep

This document addresses basic herd health recommendations for small ruminant farms.

Parasite Control

Gastrointestinal parasites can cause poor animal health, decreased production and death. Parasitism can be a huge source of economic loss in production animals. Management of parasites is based on not only treating known infestations with pharmaceuticals, but more importantly, implementing management strategies to minimize transmission of parasites. Parasites cannot be entirely eliminated from any farm but by keeping numbers low, animal health can be maintained. These recommendations are a starting point for this farm and may change depending on many farm and animal factors. It will be important that animal health be monitored closely and communication with veterinarians is frequent.

Fecal Analysis

The first step to controlling parasites is knowing the enemy. The best way for us to get a scope of the parasite burden is to run both fecal floats (for nematodes, coccidian, cestodes) and baermann sedimentation (for liver flukes). We recommend screening 12 animals or 10% of the flock whichever is larger, focusing on animals at high risk of parasitism.

High Risk Groups

High risk animals are animals that due to their life stage and physiology are more likely to be shedding larger numbers of parasites. High risk groups include: Young animals (less than 4-5 months of age), ewes near lambing, stressed animals, animals on a poor nutritional plane or low body condition score, and animals with diarrhea. (For instructions on body condition scoring, [click here](#).) These animals need to be tested and managed more intensely than other groups because they are more susceptible to disease and illness from parasites and will contribute most to fecal shedding and the spread of parasites.

Basic Feeding Strategies

The goal is to eliminate animals eating anywhere near feces. Feed any supplemental feed off of the ground in feed bunks or baskets higher than the animals' rear ends. Ensure dropped feed falls into a trough off of the ground that is also free of feces. Clean any spilled feed from ground in dry lot areas regularly. Ensure plenty of feed is supplied to limit animals spending time searching for feed, being forced to eat near fecal piles, or eating forage less than 3 inches from the ground. (Many parasites hang out at 3" and below) Proper nutrition is essential to maximizing animal immunity to parasites. Ensure all animals in all groups have supplemental mineral sources that are labeled for use in sheep. Close up, lactating and growing animals should be given adequate high quality supplemental forage (in feeders described above) in addition to pasture forage. Concentrate (grain) supplementation may be necessary in these groups. Monitor each groups' body condition scores regularly, keeping in mind a body

condition score of 3/5 is ideal. Single animals with thin body condition scores should be evaluated for illness and/or parasites. Groups of thin animals warrant investigation into nutrition provided and group parasite load. Ensure water sources are not contaminated with fecal material; watering troughs should be above animal rear end level and grazed pasture should not drain into drinking water.

Fecal Management

- Fence fecal waste piles away from grazing areas and water sources. A dry, grass free area, open to sunlight, that doesn't drain into grazing area is best. Cover fecal piles during rain. Consult OSU extension for fecal composting instructions.
- Adding dung beetles is worth consideration because they bury feces and thus decrease parasite transmission, help with fly control and aerate soil. You may have some living on your property already, more can be purchased from commercial insectariums. Note: Dung beetles are killed by many of the drugs used for deworming. Most well known is ivermectin (and ivermectin type dewormers); animals treated with ivermectin can shed beetle killing ivermectin in their feces for weeks to months.
- To prevent flukes, provide adequate pasture drainage. Pastures should not be marshy or muddy. Fence off areas that cannot be drained to prevent grazing these areas. Contact the OSU extension service for recommendations to keep pastures drained properly (trenches, drainage devices etc.). This is necessary to prevent the presence of the snails that complete the life cycle of the liver fluke.

Strategic Use of Deworming Drugs

The basic theory is to treat only the animals that need treatment, and to do so with accurate doses of appropriate deworming medications. This decreases cost and pollution associated with deworming and decreases formation of resistant parasites. Animals that are candidates for treatment meet some or all of the following qualifications: Had fecal analysis that indicates high numbers of parasite shedding; show signs of illness from parasitism such as diarrhea, pale membranes, poor body condition score, swelling under the chin; show external parasites on exam; or show signs of other illness for which your veterinarian recommends deworming. A summary of strategic deworming as well as a chart for assessing membrane color can be found at: <http://smallfarms.oregonstate.edu/sfn/sp08ruminant>. Please keep in mind that any medication given to your sheep needs to be recorded; a withdrawal time may apply. This means that there is a time period after the medication has been given, before the animal can enter the human food chain so that any drugs in the system can be metabolized or eliminated from the animal's body.

Biosecurity for Parasites

Now that you have put all this effort into creating a parasite minimizing management system, don't spoil it! Carefully consider the source farm and its health status for any new additions. Any new additions should be examined by a veterinarian for evidence of infectious diseases and quarantined or isolated for a period of at least two weeks. Fecal analysis should be submitted and show acceptably low numbers of parasites. New animals should be housed separate, with separate feeding, water and fecal removal. They should be monitored for any signs of illness and rectal temperature should be taken daily before introduction into the herd. Any sign of illness (cough, sneeze, diarrhea, poor appetite, lethargy, lameness, poor body condition score, fever or temperature greater than 102.5) warrants veterinary examination and precludes introduction into the herd.

Example Vaccine Schedule

Birth:

- Ensure lamb receives colostrum within 4 hours of birth
- Give Vitamin A and D as labeled (from veterinarian)
- Give Selenium and Vitamin E as labeled (from veterinarian)
- Dip naval in dilute betadine or dilute chlorohexedine twice daily for the first 2-3 days of life.

2 Weeks of Age:

- Begin coccidia prevention: Feeding of coccidiostat creep feed/ kid starter.

4 Weeks of Age:

- Initial CDT Vaccine

8 Weeks of Age:

- CDT vaccine booster

Annual Vaccines (Adults)

- CDT vaccine
- For pregnant ewes, do this during the last month of pregnancy
- For the first vaccine in life, all animals need an initial and a booster in 3-4 weeks. After this booster series, they should be vaccinated once every year.

Trace minerals

We recommend providing a mineral supplement labeled for use in sheep. Because these supplements do not contain enough selenium, we recommend twice yearly selenium injections (usually before breeding and lambing). Follow label instructions from your veterinarian.

Hoof Trim

All animals should be checked regularly. Some animals require trimming more frequently about every two months, and some rarely require trimming. Consult a veterinarian to show you how to trim feet and what to watch for.

Deworming:

- Deworm pregnant ewes before lambing
- Employ use of strategic deworming as described above.

NOTE: Consult your veterinarian to discuss the safety of any medications given to pregnant animals, as well as to recommend withdrawal times. Many medications and vaccines vary in their safety and withdrawal recommendations.