

# LUNGWORMS

Lungworms are a lesser-known class of internal parasite that reside in the lungs and windpipes of their hosts. There are two types of lungworms that can infect sheep/goats: large and small. Large lungworms (*Dictycaulus filaria*) are less common but the most pathogenic. They have a direct life cycle. Small lungworms (*Muellerius capillaris* and *Protostrongylus rufescens*) are more common but less pathogenic. They have an indirect life cycle, meaning they require an intermediate host (land snail or slug) to complete their life cycle and infect sheep/goats.

## Clinical signs

- Clinical disease uncommon
- Often no outward signs
- Pneumonia or bronchitis
- Respiratory distress: coughing, labored breathing, and/or thick nasal discharge
- Lack of thrift
- Loss of weight and body condition
- Reduced productivity
- Secondary bacterial infection

## Diagnosis

- Not easy in live animals
- Observation of clinical signs
- Need to rule out other causes
- Consult your veterinarian
- Laboratory testing
  - Fecal exam using Baermann technique
  - Postmortem findings

## Treatment

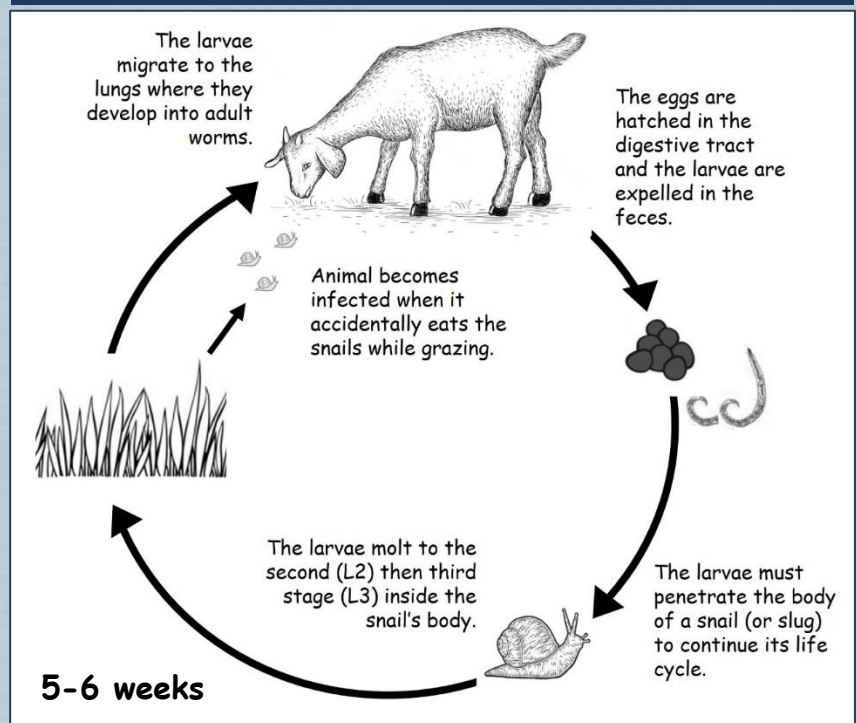
- Broad spectrum dewormers
- Treat secondary bacterial infections with antibiotics and anti-inflammatories (Rx).

## Prevention

- Pasture rest and rotation
- Delayed grazing
- Reduce snail/slug population: ducks, geese, guinea fowl
- Good nutrition and hygiene
- Avoid wet areas and hot spots
- Control other parasites



## Life cycle of small lungworms



Lungworm prevalence varies by geographic region, season, and management. Lungworms are found primarily in areas with high rainfall or intense (surface) irrigation. They prefer cool, moist conditions and are usually a greater risk in more northern climates. In a 2019 NAHMS study, lungworms were detected on 35.4 percent of goat farms. Prevalence was highest in the Northwest and Northeast: 69.1 and 51.2 percent, respectively. Problems with lungworms are usually sporadic but could increase with climate change and changes in deworming practices.