

Parasites

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Why do they matter?

How does parasite infection impact production?

Animal health:

- ▶ Steal nutrition/blood from animal
- ▶ Can get other diseases easier
- ▶ Make body condition worse



Cost to you:

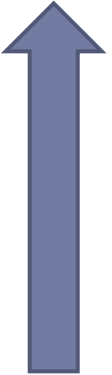
- ▶ Decrease in meat – take longer to grow
- ▶ Increase in labor to take care of if sick
- ▶ Decreased reproduction
- ▶ Don't make as much money for animal at sale
 - ▶ Fukumoto UH publication



Which animals matter most?

- ▶ Which animals are most susceptible?

Most

- 
- ▶ Kids/lambs/calves/foals
 - ▶ Pregnant, lactating
 - ▶ Adults not breeding



Least



Types of parasites

Main types:

▶ Internal

▶ Worms

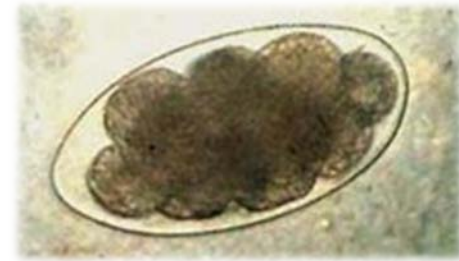
- ▶ Roundworms
- ▶ Tapeworms
- ▶ Flukes

▶ External

▶ Often are insects

- ▶ Flies
- ▶ Lice
- ▶ Mites
- ▶ Mosquitoes

-
- ▶ Ticks



Internal worm example 1

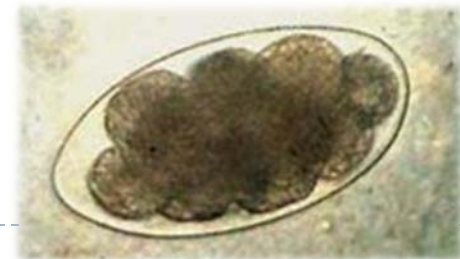
Barber pole worm

- ▶ Most important parasite of both sheep and goats
 - ▶ #1 offender is the Barber Pole worm
 - ▶ Causes many deaths per year



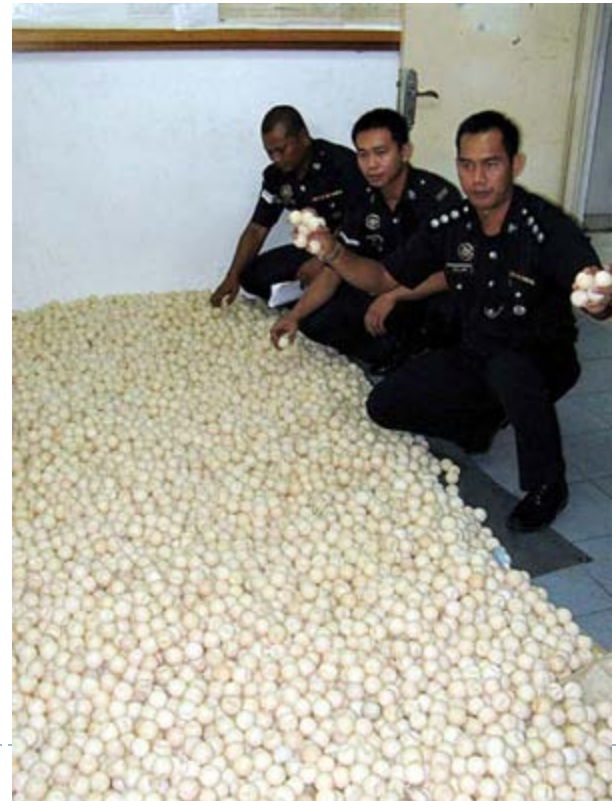
Barber pole worm

- ▶ Barber pole worm
 - ▶ Loves warm, moist climates!
 - ▶ Does not survive well in cold or dry conditions – Palau!!
 - ▶ Can hold over in the stomach for months however until conditions improve
 - ▶ You'll NEVER rid your herd/flock of this worm – but you can control it
 - ▶ Any idea how many eggs a female can produce??



Barber pole worm

▶ 10,000!!!!



Barber pole worm

- ▶ 10,000!!!!
- ▶ Per DAY!!!



Blood-filled intestines



Blood-filled intestines



Egg-filled ovaries



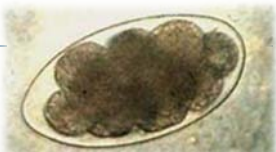
Barber pole worm

- ▶ Barber pole worm
 - ▶ Blood sucking worm that causes severe blood loss
 - ▶ Often there are **NO** other clinical signs
 - ▶ May have diarrhea but don't count on it



Barber pole worm

- ▶ Lives in the “true” stomach
- ▶ Sucks blood from host animal.
- ▶ Produces THOUSANDS of eggs!!
- ▶ Signs: blood loss (pale around eye), bottle jaw, loss of body condition and weight, poor hair coat, tired, and death.



Other internal worms

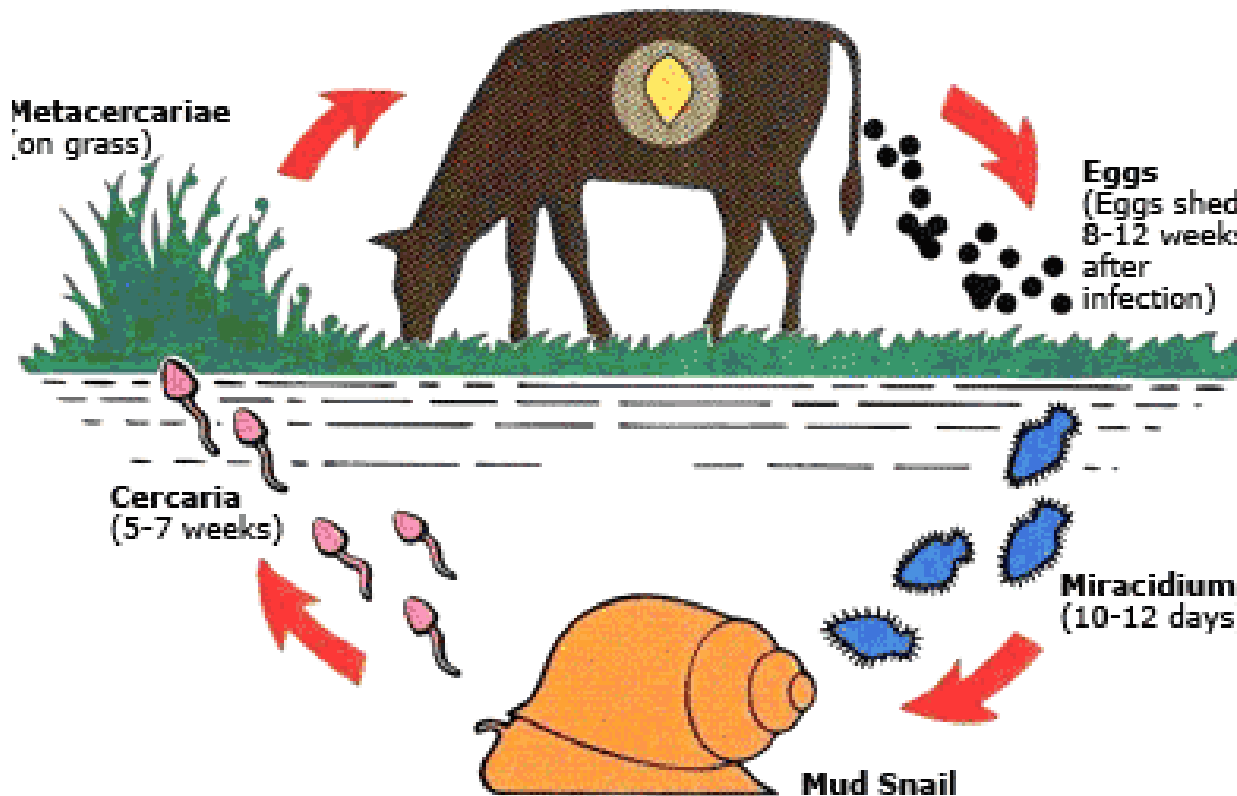
- ▶ Others:

- ▶ Roundworms
- ▶ Liver Flukes
- ▶ Tapeworms



Internal parasite example 2

▶ Liver fluke in cattle



Parasite control

- ▶ Besides deworming...



Parasite control

- ▶ Besides deworming...
- ▶ We can't rely on drugs alone!!
- ▶ Watch your stocking density – “the more the merrier” as the parasites would say!
 - ▶ Higher numbers in an area = higher eggs/larvae in that area
- ▶ Better nutrition (including minerals) helps with natural immunity, ‘food’ lost to parasites, and protein in diet aids in replacement of red cells lost to parasites



Parasite control

- ▶ Grazing management



- ▶ Good sanitation

- ▶ Feed off the ground, keep troughs clean, manure control



Parasite control



- ▶ Genetic selection
 - ▶ Resistant breeds when possible
 - ▶ Have an animal that keeps getting parasites before the others?
Consider culling.
 - ▶ Have a group that are last to get parasites?
Keep these.

Parasite control



- ▶ New animals on farm?
 - ▶ Quarantine and deworm
 - ▶ Quarantine area should be separate from pens/pastures you usually use (shedding in feces)
 - ▶ Wait ~ 1 week before introducing into your herd/flock



Keeping animals healthy and productive – it's a balancing act!

Balance between:

Nutrition

Cleaning

Management

Growth

Breeding



Thank you!!

