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### Production Philosophy

- A cull is a cull no matter what the papers say!!
- Rock around the feeder and water make it neater.
- Inconvenience has lost many an animal
- Sunlight an fresh air promote health.
- A \$6.00 bucket is better than a \$5,000 herding dog.
- One or more goats requires a catch pen and chute.

Adapted from Cow Production Philosophy, ideal Beef Memo, Nov. 1983

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### Parasite Control

#### Our #1 issue in Small Ruminants World Wide

Caution: I am not a veterinarian, only a veterinarian can recommend any product or use of a product other than according to the label. Product information in this presentation is **not** a recommendation. Consult with your veterinarian before using any product that is not labeled for your animals.

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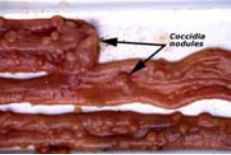

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## Primary Goat Parasites

- Internal:
  - Coccidia
  - *H. contortus*
- External:
  - Lice
  - Mange

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## Coccidia

- Protozoa parasite found in intestine.
- Primarily a problem in young animals but present in all goats.
- Transmission is fecal to oral.
- Can cause permanent damage to animals



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## Prevention and Treatment

- Prevent by keeping fecal contamination out of feed and water.
- Rock around water to reduce mud
- Feed ionophores to reduce outbreaks
- Treat with Albion or Corid



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H. Contortus or the Barber pole worm is the # 1 problem in sheep and goats world wide.

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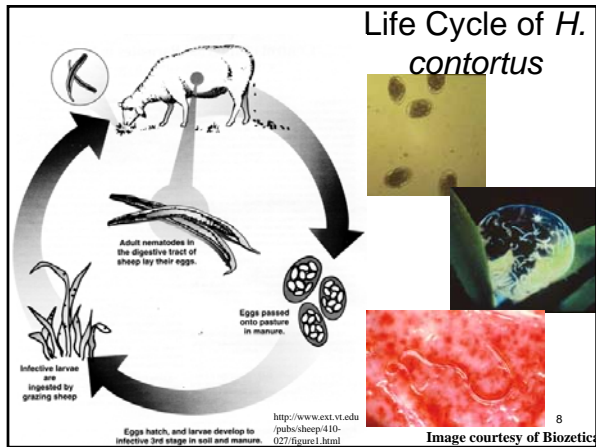
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### Selective Treatment for *H. contortus* Control

- Parasites are not equally distributed in groups of animals
  - 20-30 % of animals harbor most of worms
    - responsible for most of egg output
- Resistance is building to the available products
- Why treat all animals equal?

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## Methods of Diagnosing Parasites

- FAMACHA
  - Novel approach that looks at the level of anemia in animals to determine the level of parasite load.
- FEC – Fecal Egg Count
  - Method of taking a fecal sample and examining it to determine the number of parasite eggs per gram of fecal matter.

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## General Treatment Guidelines When Using FAMACHA

- Treat goats and sheep in categories 4 and 5 with an effective dewormer
- If in doubt, score at paler category
- Mark treated animals or record treatments
- Do not use in isolation – use FECs, rotational grazing, strategic or tactical treatments

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## Advantage of Selective Treatment (FAMACHA)

- Identify animals that need treatment most often
  - Animal resilience to parasites is moderately heritable (0.3 – 0.4)
- Reduce the amount of product used/year
- Reduce rate of resistance in parasites

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## What Causes Resistance To Dewormers ???

- Frequent Treatments
  - >3 treatments per year
- Under dosing
- Treating when few larvae are on the pasture- early in season
- Treating all animals at same time

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## Resistance Occurs Within Classes of Anthelmintics

- Resistance to one drug in a class confers resistance to all others
  - same mechanism of action
- Exceptions to this are due to differences in potency and are only temporary
  - ABZ (Valbazen®) has better efficacy than FBZ (Panacur®/Safeguard®)
  - Levamisole (Tramisol®) has better efficacy than worms resistant to morantel (Rumatel®)
  - Moxidectin (Cydectin®) has better efficacy than ivermectin (Ivomec®) resistant *Haemonchus*

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## Do Not Buy Resistant Worms

- All new additions should be quarantined and aggressively dewormed upon arrival
- Deworm with 3 anthelmintics from different drug classes
  - Cydectin, Levasol, and Valbazen upon arrival
- Should remain in quarantine for 10 - 14 days
  - Perform FEC to confirm that no eggs are shed



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### A Recommended Treatment Plan

- Deworm all does at Kidding
  - Spike in FEC occurs at kidding
- Check FAMACHA monthly during grazing
- Conduct FEC on random sample of animals at start, middle, and end of grazing season.
- Buy and use a scale to properly treat all animals
- Check Kids when you check does on pasture

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### External Parasites: Lice

- Primarily a problem during winter
- Can be seen on animals
- Check for what appears to be grass seed in hair coat.
- Treat with pour on lice control product according to label or veterinarian recommendations

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### External Parasites: Mange

- Sarcoptic mange is also known as scabies.
- Most of the lesions occur around the eyes, ears, neck, inner thighs and udder of the affected animal.
- The thickened skin is often wrinkled and fissured.
- Treat with Ivermectin pour on is common.

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## Vaccination Schedule for Goats

- Common Vaccines for Goats:
  - Clostridia type C & D
  - Tetanus
  - Respiratory Disease
  - CL
- Work with your veterinarian to develop a vaccination plan for your herd.

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## Recommended procedures

- CD&T
  - 4 to 6 weeks before kidding to all does as a booster
  - Shot and booster to kids before weaning but over 4 weeks of age.
- Respiratory
  - Cattle vaccines at ½ cattle dose for intranasal
- CL
  - At weaning to doe herd and replacement does

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