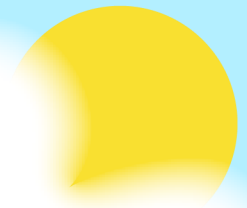


Parasite Management in Small Ruminants and Camelids



What is Resistance?

Resistance to common de-wormers is becoming more of a problem in the small ruminant and camelid population. Due to this rise in resistance, more and more animals are succumbing to large parasite loads, causing a decrease in health.

Common Causes of Resistance:

1. Frequent de-worming (more than 3 times a year)
2. Under-dosing the de-wormer being used
3. Reducing refugia

Preventing Resistance:

Only de-worm animals with an increased parasite load who are currently showing signs of parasitism.

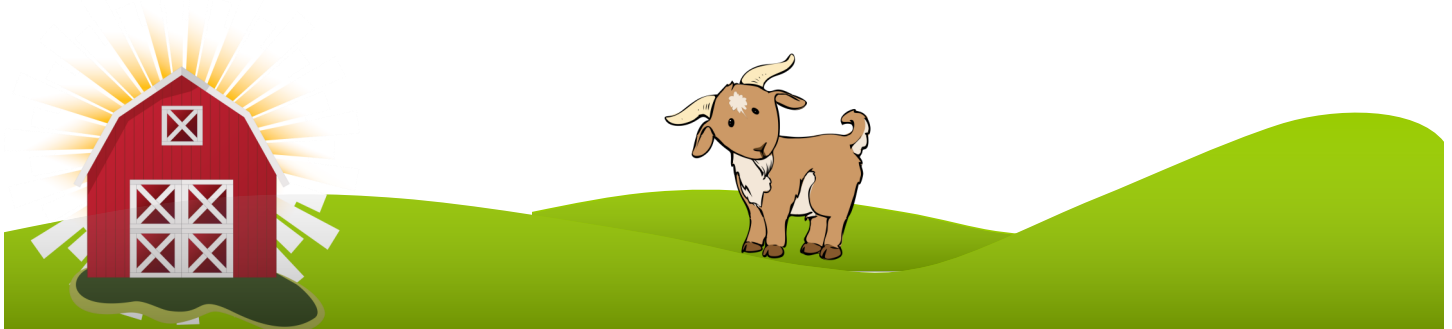
Who do we de-worm?

1. Animal with a high fecal egg count (FEC)
2. Animals with a poor FAMACHA score
3. Animals displaying signs of parasitism, such as ill-thriftiness, diarrhea, low body condition score (BCS), etc.

REFUGIA:

“Proportion of the worm population that was not exposed to the de-wormer. This includes eggs and larvae on pasture at time of treatment and the worms in animals that were not de-wormed”

Refugia is a good thing! It increases the number of SUSCEPTIBLE parasites to our current de-wormers so that we are not left with only RESISTANT parasites.





FECRT:

1. A fecal is performed on a group of animals, preferably at least 8-12 animals.
2. A repeat fecal is run 10-14 days later on the animals originally tested.
3. Egg count reduction is calculated to determine the percentage of worms killed by the de-wormer.

This can let a farm know whether or not the de-wormer they are using is working or if resistance is present.

Management Guidelines:

1. Selectively de-worm animals with poor BCS, poor FAMACHA scores
2. Perform FEC to determine parasite load of herd
3. Perform FECRT to determine if your current de-wormer is actually working against parasites
4. Try to increase refugia on your farm

What is a FEC and why are they important?

A FEC is a quantitative method to count the amount of parasite eggs in an animal. It does not always appropriately determine the parasite load in an animal, as some adult worms in the GI tract of an animal do not shed a large number of eggs. Regardless, it can help us calculate parasite load and help us determine who in fact needs to be de-wormed. It also can help diagnose the efficacy of the de-wormers your farm currently uses with the use of a fecal egg count reduction test (FECRT).

Alternative Therapies:

1. Sericea lespedeza: contains condensed tannins (mechanism of action still unknown)
 - Should be used in conjunction with other therapies
 - Reduces the hatchability and fecundity (egg laying ability) of parasites
2. Copper oxide wire particles (COWP)
 - Mainly affects Haemonchus (barber pole worm)
 - Need to be careful with toxicity, especially in sheep
3. Diatomaceous earth
 - Not scientifically proven to work

