Animals in Health & Disease

Veterinary Parasitology

Pasture-borne Nematodes

(answers only)

Pasture-Borne Life Cycle

Fill-in-the-Blank

How do grazing hosts become infected with pasture-borne nematodes?

Ingestion of Infective L3 while Grazing

Pasture-borne Nematodes

Goals for control

Check box: Check the Boxes that apply to the goals for controlling Pasture-borne nematodes.

- [x] Promote Refugia
- [x] Limit Pathology
- [ ] Eliminate all the worms from an individual host.
- [x] Reduce pasture contamination
- [ ] Promote underdosing of dewormers to save money.
- [x] Reduce the Use of Dewormers
- [x] Slow Resistance

Pasture-born Nematodes Susceptible Host

Fill-in-the-Blank

True In general, 80% of pasture contamination is contributed by 20% of Herd.

- True or False ?

In general, Young & Naïve hosts are more likely to become heavily infected and seriously affected by parasites.

- Young & Naïve hosts or Older hosts?

Deworming v/s Adult worms

Matching: Match each type of deworming with its associated scenario.

__B__ **1.** A subclinical horse with a FEC* above specified threshold

__C__ **2.** Planned Deworming v/s the Periparturient Rise

__A__ **3.** Host showing severe clinical pathology

__B__ **4.** A subclinical goat with a FAMACHA score of D(4)

__A__ **5.** Calf with intense diarrhea and anorexia

__C__ **6.** Has led to overuse of dewormers and resistance.

__B__ **7.** Used to promote refugia and delay resistance

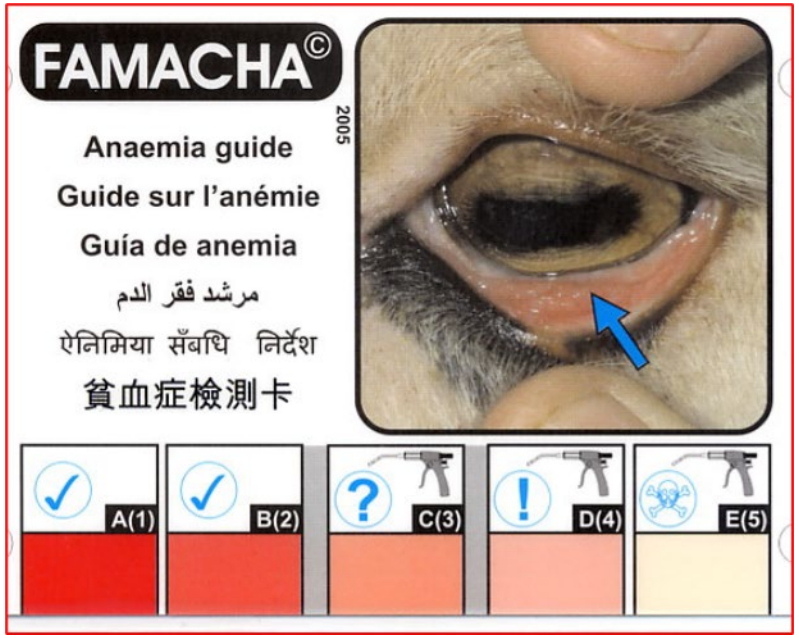
__C__ **8.** Deworming Based on PPP**

*FEC = Fecal Egg Count; **PPP – PrePatent Period

A. Salvage deworming

B. Selective (Tactical) deworming

C. Strategic deworming



Informative Ova

Matching: Match each type of Fecal Diagnostics with its associated use.

C 1. Utilizes the McMasters technique

A 2. Used to identify Hosts with High Contamination Potential

B 3. Informs about the presence of Dewormer Resistance

A 4. Used to check efficacy of one's deworming program

A. Fecal Egg Count

B. Fecal Egg Count Reduction Test

C. Both

Multiple Choice: Choose the best answer.

C 1. When is the best time to check the efficacy of one's pasture-borne nematode control program?

A. Beginning of Grazing Season

B. Middle of Grazing Season

C. End of Grazing Season

Fecal Pat

Multiple Choice: Choose the best answer.

B 1. Which environmental conditions are most detrimental to the free-living stages (ova, L1s, L2s, L3s) of pasture-borne nematodes?

A. High Humidity & Low Temperature
B. Low Humidity & High Temperature
C. Mild Humidity & Mild Temperature

D 2. The release of large numbers of L3s from fecal pats, which cause pathology in hosts soon after a rainstorm event following a dry period.

A. Resistance **B.** Refugia **C.** Premunition **D.** Larval Storms

Pasture Management

Matching: Match each type of pasture management with its associated characteristic.

__B__ **1.** Requires much fencing for multiple small pastures.

__A__ **2.** Seldom move herd

__B__ **3.** Avoids Overgrazing

__B__ **4.** Limits Excessive Pasture Contamination with Parasites

__A__ **5.** Not good for Pasture Health nor Parasite Control

__B__ **6.** Allows better recovery of Forage

__B__ **7.** Move herd when grass is eaten down to 4 inches.

A. Continuous Grazing

B. Planned Intensive Grazing

L3s: Treat & Move Rotation

Multiple Choice: Choose the best answer.

__A__ **1.** Which "Treat-&-Move Strategy" is most likely to produce a monoculture population of Resistant Nematodes?

__A__ **2.** Which "Treat-&-Move Strategy" inhibits the development of Refugia?

A. Treat & Move
B. Treat, Wait, & Move
C. Move, Wait, & Treat

L3s: Co-grazing Strategies

Matching: Match each type of co-grazing with its associated characteristic.

__A__ **1.** Relies on Host Specificity limitations of the parasite.

__B__ **2.** Relies on Age-Related Immunity (Acquired Immunity) of the host.

__A__ **3.** Horse & Goats grazed together

__B__ **3.** Calves on a pasture first, followed by adult Cows

__C__ **5.** L3s ingested by and die within a non-susceptible host.

__B__ **6.** Cow with Calf at her side

A. Interspecific co-grazing

B. Intraspecific co-grazing

C. Both

Arrested L4s

Multiple Choice: Choose the best answer.

__E__ 1. Which Life Cycle Stage encysts in the tissues of the host, then later reactivates to be the source of Spring Rise and Periparturient Rise?

A. Ova **B**. L1s **C**. L2s **D**. L3s **E**. L4s **F**. Adults

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Matching: Match each parasitological event with its associated characteristic.

__A__ **1**. L4s re-activate and become adult worms that produce eggs that contaminate spring pastures.

__A__ **2**. Treat herd at the end of grazing season with larvicide to reduce over-wintering arrested L4s.

__D__ **3**. Reactivation of L4's after removal of adult worm population.

__B__ **4**. Treat dame before and after parturition.

__C__ **5**. Herd shows this rise at the beginning of the grazing season.

A. Both A & B

B. Periparturient Rise

C. Spring Rise

D. Loss of Premunition


VETERINARY
PARASITOLOGY
HOST
PARASITE
IgE
CVM-NCSU
GROUP