

CASE 2: Students M-Z (by last name)

Ride and Scrub Farm

Trial rides and scrub goats



THE HISTORY

Tom and Jeannie Grubbs have a 120-acre multi-generation family farm near Pittsboro in Chatham County. They have 20 scrub goats and 10 trail horses. The scrub goats are for leasing to clear scrub growth, and the horses are rented for guided trail rides, leased, or boarded.

The 120 acres are divided accordingly: 5-acre homestead (house, barn, paddock, riding rink, garden), 35 acres of pasture, and 80 wooded acres with riding trails. The 35 acres are divided into two 15-acre pastures and one 5-acre pasture. There is no set schedule for pasture rotations; just when a pasture is "looking poorly". Livestock is supplemented with hay and grain, heavily in the winter.

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THE LIVESTOCK

Scrub Goats

The 20 scrub goats are does & wethers only. From about mid-April through October, the goats are leased to the local electric cooperative to maintain the electric company's nearby solar farm (fenced & gated). The solar farm is a 15-acre plot of solar panels; with about 40% grasses, 30% volunteer scrub weeds, briars, and saplings, and 30% planted in *Sericea Lespedeza* for erosion control. From November to April, the goats are most often on the *Ride & Scrub Farm*, in the 5-acre pasture, heavily supplemented with hay, and separate from the horses. Occasionally, in the winter, the goats will be leased to local landowners to clear out the scrub from the edge of a field, a scrubby wooded area, or an old garden plot; with movable fencing used to contain the goats. The goats are also used to help maintain the riding trails on the *Ride & Scrub*. The goats are dewormed in the spring prior to moving to the solar farm and in the fall when returning to the *Ride & Scrub*. The dewormer used is *Ivomec Sheep Drench* (Ivermectin @ PO 0.4mg/kg [6ml/25lb]) - Extra-Label.

Horses

The 10 horses are mares and geldings from 5 to 12 years old. The horses are rotated between the 3 pastures rather randomly, except in the winter, when the goats occupy the 5-acre pasture. Horses are supplemented with hay and grain, especially in the winter. All the horses are dewormed twice a year with *Zimectrin* (Ivermectin) in May and *Quest Plus* (Moxidectin + Praziquantel) in November. This past April, a new 4-year-old mare (*Baby Lyte*) with an unknown deworming history was added to the herd but was dewormed upon arrival with *Zimectrin* (Ivermectin).

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THE CASE

On November 05, your veterinary crew visited the *Ride & Scrub* to do basic health checks on the goats and horses.

Relevant history provided by Mr Grubbs includes:

- The above detailed farm history and deworming protocol.
- The goats have recently returned from the solar farm but have not been dewormed.
- The horses also have not received their standard November dewormer.
- Dragging the pastures is conducted every 3 to 4 months.
- The last FECRT was done 2 years ago.
- Also, about 2 weeks ago (mid-October), the new mare (*Baby Lyte*) developed soft stools.

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Your Crew's Actions Relevant to Parasites

Goats

November 05:

- FAMACHA scores taken
- Pre-treatment feces collected
- All animals treated with *Ivomec Sheep Drench* (Ivermectin @ PO 0.4 mg/kg [6ml/25lb]) [Extra Label] (Meat withdrawal time = 20 days)
- At the Vet Lab: Fecal Egg Counts (FEC) by McMasters Technique
- (Post-treatment fecals were cancelled due to low pre-treatment FECs)

Horses

November 05:

- Pre-treatment feces collected
- All animals treated with *Quest Plus* (Moxidectin + Praziquantel) based on Weight Tape measurements.
- At the Vet Lab:
 - Fecal Egg Counts (FEC) by McMasters Technique.
 - A passive Fecal Float for the presence of *Parascaris equorum* ova.

November 15:

- Post-treatment feces collected
- At the Vet Lab: Fecal Egg Counts (FEC) by McMasters Technique.

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Your Crew's Diagnostic Findings

Goats: A sample of diagnostic results

Goat	Observations	FAMACHA	Pre-FEC (epg)	Post-FEC (epg)	FECRT (%)
Wether 1	BAR	1	100	n/a	n/a
Wether 2	BAR	1	50	n/a	n/a
Wether 3	BAR	2	325	n/a	n/a
Wether 4	BAR	1	50	n/a	n/a
Wether 5	BAR	1	0	n/a	n/a
Doe 1	BAR	2	250	n/a	n/a
Doe 2	BAR	1	25	n/a	n/a
Doe 3	BAR	1	50	n/a	n/a
Doe 4	BAR	2	275	n/a	n/a
Doe 5	BAR	1	75	n/a	n/a

BAR = Bright, Alert, Responsive

Horses: Diagnostic results

Horse	Age (years)	Parascaris	Pre-FEC (epg)*	Post-FEC (epg)	FECRT (%)**
Dancer	9	--	450	0	
Casey	7	--	525	0	
Rosey	10	--	225	0	
Christy Marie	12	--	50	0	
Bush	11	--	0	0	
Baby Lyte	4	--	1500	100	
Frostie	8	--	375	0	
Lucky	6	--	225	0	
Charge	11	--	425	0	
Holly	8	--	75	0	
Bailee	5	--	575	0	

For *Parascaris*: + = Observed; -- = Not Observed

Recently Updated AAEP guidelines suggest:

* A deworming threshold of >500 epg.

**And an annual FECRT for adult horses.

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Case Assignment / Discussion

1. Use the included NC Extension article to determine Stocking rate.
How many acres are needed for the number of Goats + Horses? _____
Is the Solar farm overstocked? _____
Are the pastures overstocked? _____

2. Determine FECRT for the horses:

$$\text{FECRT} = \left(\frac{\text{PreFEC} - \text{PostFEC}}{\text{PreFEC}} \right) \times 100$$

3. Speculate on why the goats have such low FECs?
4. Are the horses showing issues with Anthelmintic resistance?
5. Why was the *Parascaris* sp. diagnostic performed?
6. Which horses were above the AAEP recommended threshold for deworming?
7. Why were the horses that were below the threshold also dewormed?
(Hint see page 24 of the AAEP guidelines)
8. What Advice would you give regarding:
 - Deworming for the goats?
 - Pasture Management options? (see Cases 3 & 4 for ideas)
 - Any other recommendations?