

MINKA FARMS- April 2015

History: Minka Farms is a grass-fed beef operation that raises calves to finishing. In addition to cattle they have ducks, chickens, goats, horses, and donkeys. The owner acquired the property in 2007. Previously the farm had been used for dairy and mixed purpose. The former management had used ivermectin liberally and the pastures were light colored and overgrazed. The pastures are now primarily endophyte positive fescue with clover, dallas grass, and naturally occurring species.

The current population is 99 head, which consists of breeding cows and their calves, steers and heifers, and three bulls. The most recent addition is a Senepol bull who has been on the farm for less than thirty days and is still in quarantine. His previous deworming history is unknown. The only new additions to the farm in the past few years have been breeding bulls. A stray cow managed to enter the farm and make direct contact with some of the MInka cattle two years ago. This year, nineteen calves were born with a single mortality, so there are eighteen 2015 calves as of now. The calving schedule has been regularized to once per year, with this season beginning February 15th and ending in mid April. Most of the calves were born within the first three weeks. The cows are vaccinated twice yearly for black leg and once a year for respiratory disease.

The current parasite control strategy is based around pasture rotation. The cows are moved to new pasture when they graze the grass down to around 3 inches. On average the pastures lay dormant for around 2 months before the cows are turned back on them. The last deworming occurred in October 2012 for the adults and May 2013 for the animals that were a year or younger. The de-wormer of choice is Valbazen. There is some suspicion of possible *Giardia* infection since the cattle are exposed to standing pond water during their pasture rotations. The primary source of water is well-water, with a stream as a secondary source in the over-wintering pasture. The cows overwintered from December 20th to April 3rd.

There is a small population of goats on the farm consisting of one buck, two adult males for companionship, four breeding females, and eight kids. Most of the goats are Kikos, plus a dairy goat who produces Kiko crosses. The goats are FAMACHA-tested once per month and dewormed as necessary. One dam was dewormed several times in the past year, but most of the goats do not receive any regular deworming. There is a correlation between stressful times, such as kidding, and times when deworming is deemed necessary. There is no co-grazing. The cows will clean up the goat fields several times per year.

The farm does have ectoparasites present but at this time no management steps are being taken to control them. Predatory flies were introduced in the past, but as a non-native species they do not thrive and require repeated seeding to keep up the population. In light of the relative lack of a fly problem, predatory flies are no longer being introduced to the farm.

Results:

In general the herd looked to be in very good health. The animals had appropriate BCS and good coat condition.

Individual Animals:

ID	Strongyle-Type EPG	Notes
A7	1.5	<i>Capillaria</i> present
B53	10	
B55	2.5	
B58	24	
B64	10	
B67	10	
B71	68	<i>Capillaria</i> , moderate coccidia
B75	27.5	
B81	3.5	
B91	13.5	
B94	24	<i>Capillaria</i>
Bull	2	Moderate Coccidia
F61	1	
W28	1	
W6	2	
X6	4	
Y2	2	Moderate Coccidia
Y6	3	
Y8	2	
Z13	0	
Z18	2	
Z37	0.5	
Z40	0	
Z42	0	
Z46	0.5	

Random Pasture Samples:

Unidentified Samples	Strongyle Type EPG
B calf 1	0.5
B calf 2	8
B calf 3	9.5
B calf 4	2.6
B calf 5	3
B calf 6	4
B calf 7	4
B calf 8	21
B calf 9	5
Cow P-1	1.5
Cow P-10	8
Cow P-11	1
Cow P-12	0
Cow P-13	2
Cow P-2	1.5
Cow P-4	2
Cow P-5	7.5
Cow P-6	0.5
Cow P-7	0
Cow P-8	6.5
Cow P-9	2
Cow P3	2

Discussion:

In comparison to 2014, there were a few individual examples of elevation in the fecal egg count for a small representation of the herd (68 EPG vs. 12.5 EPG). However, the herd still falls significantly under the recommended point of anthelmintic intervention, especially for the market weight animals. It is believed at this time, that the farm operator's regimen of pasture rotation is extremely effective. *Ostertagia* and *Cooperia spp.*, which are both members of the Trichostrongyloidea superfamily, are the nematodes we are placing greater focus on. They cause diminished weight gain, anorexia, and diarrhea, which all negatively impact beef cattle operations. Both of these parasites have 3 week prepatent times; this is the period between infection and shedding of eggs. Once eggs are shed, they require 1-2 weeks to develop into infective L3 stage on the pasture.

Along with the previous years' results, this year's egg counts reflect the highly efficient parasite management strategies on Minka Farms. The frequent rotation through 18 pastures allows cattle to graze without taking up infective larvae in significant quantities. The pastures themselves are absent cattle for about 2 months between grazings; this allows time for any infective larvae shed by the animals to die before the next rotation moves onto pasture. According to the low fecal egg counts of 2015's sample, it would be ideal for Minka Farms to continue its management strategies and only deworm anomalous animals showing severe clinical signs of parasite infection.