

Collaborative Adaptive Rangeland Management



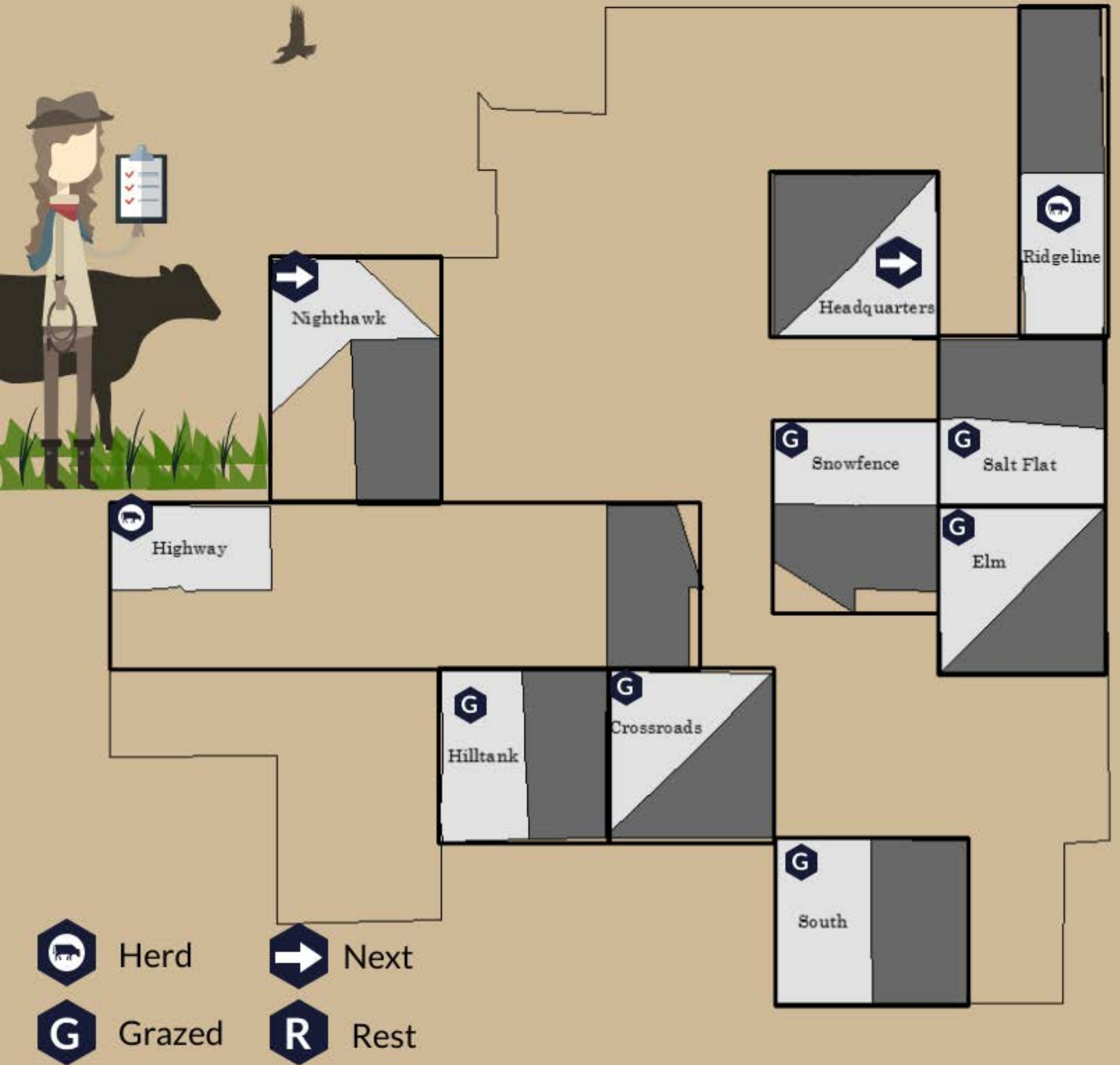
Review where it all began





Dive into the details...

CARM 2 moved!



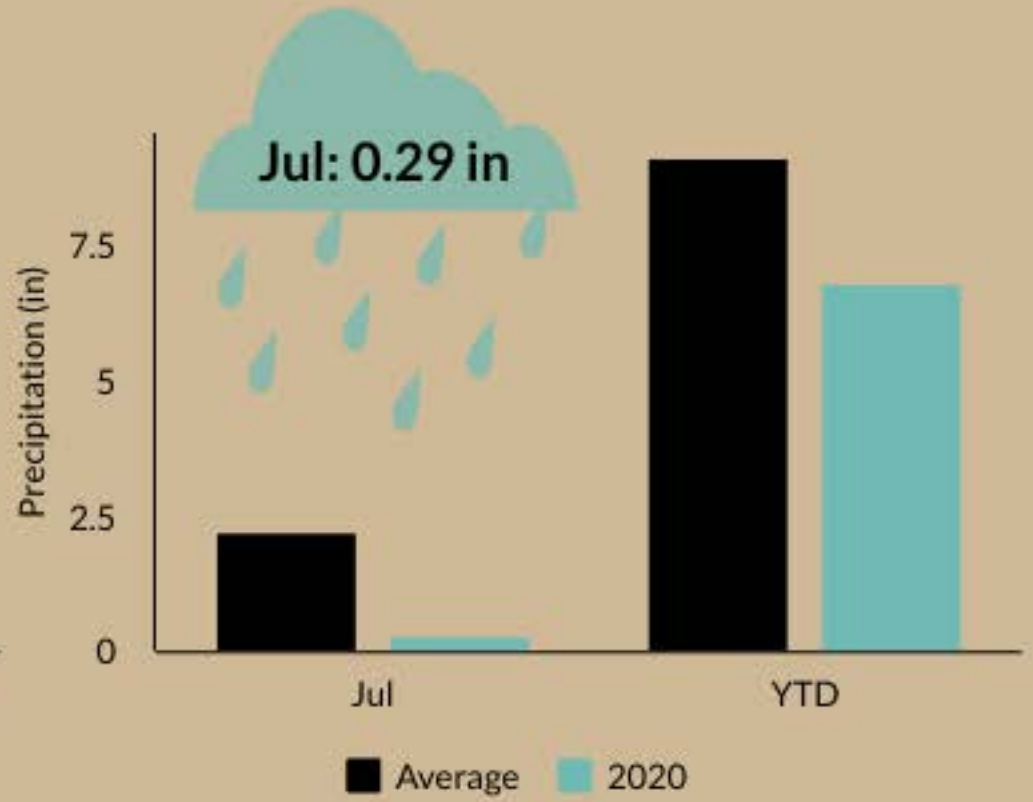
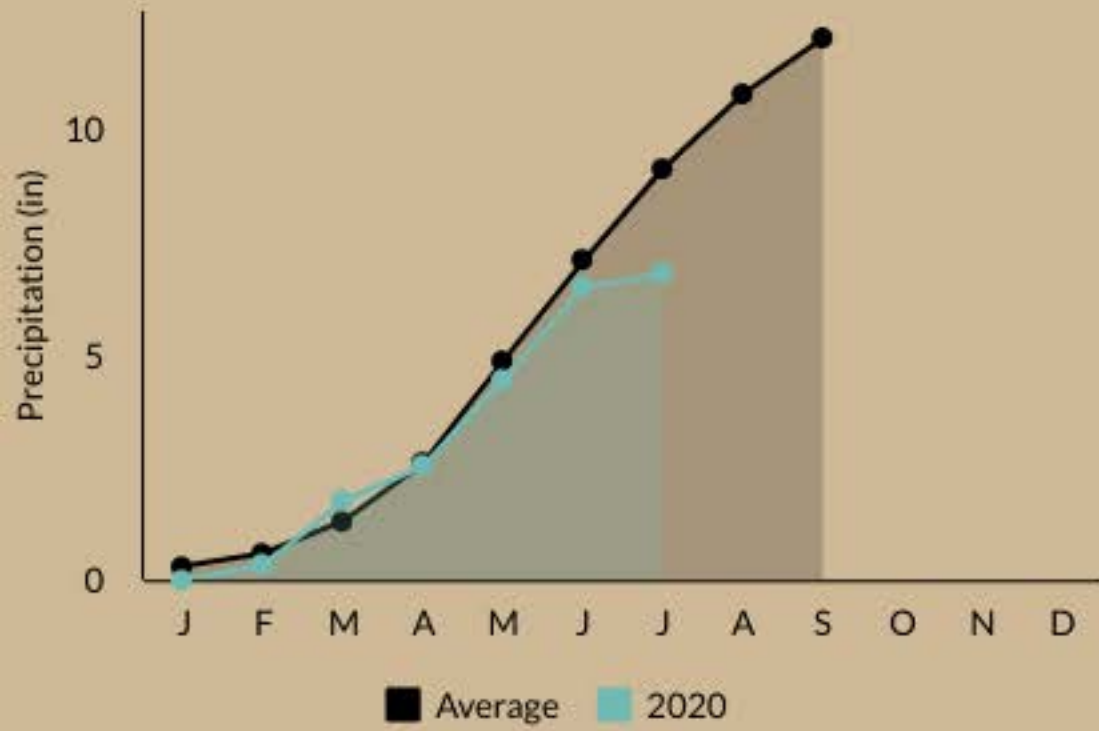
Highway | Ridgeline

- Loamy Soils
- Warm Season Grasses
- Vegetation Threshold:
 - 300 pounds/acre

- Mixed Soils
- Cool & Warm Season Grasses
- Vegetation Threshold:
 - 400 pounds/acre

Highlights of Happenings

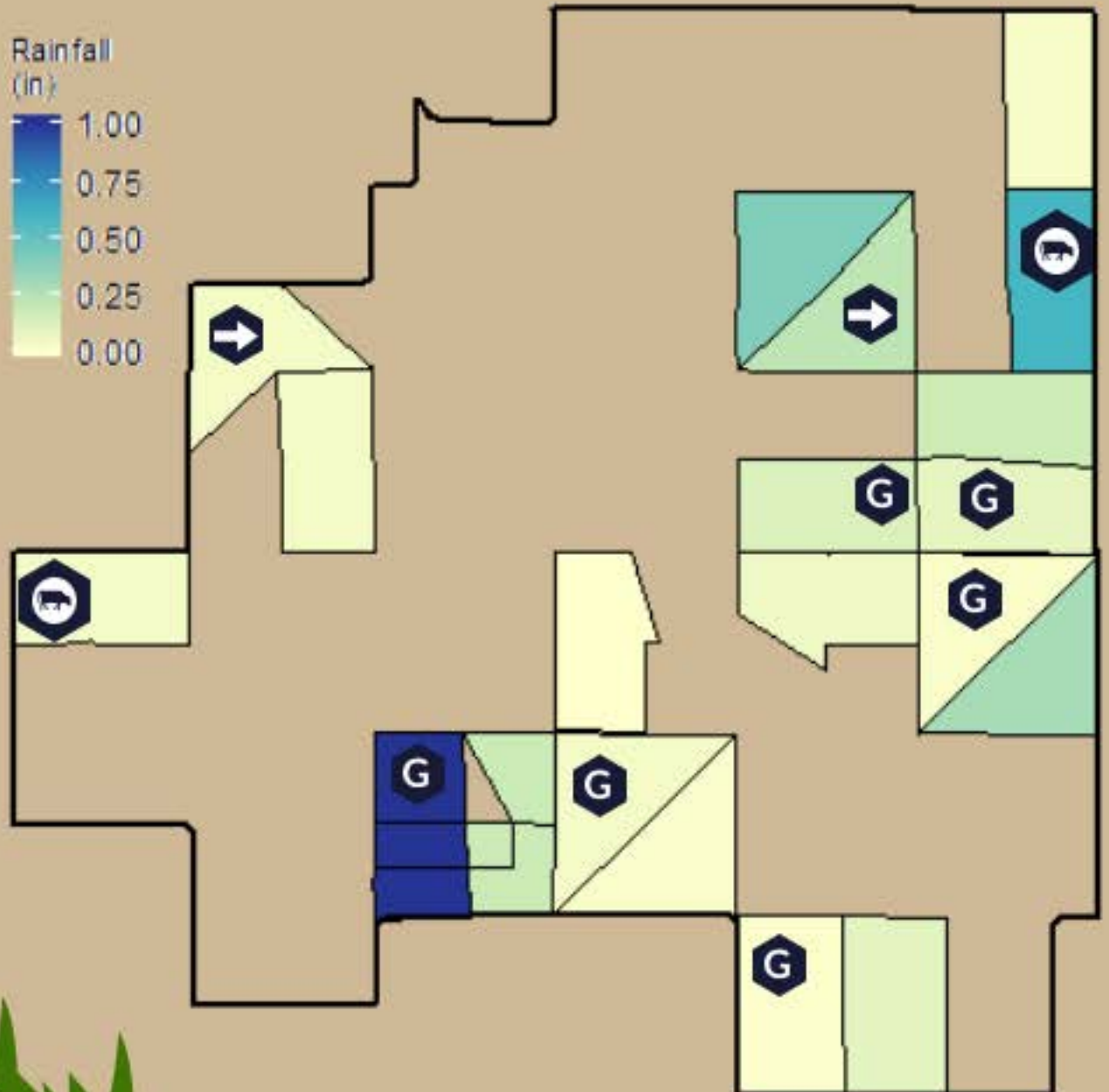
Rainfall Totals



Total Rainfall

2020-07-12 to 2020-07-19

Rainfall Distribution



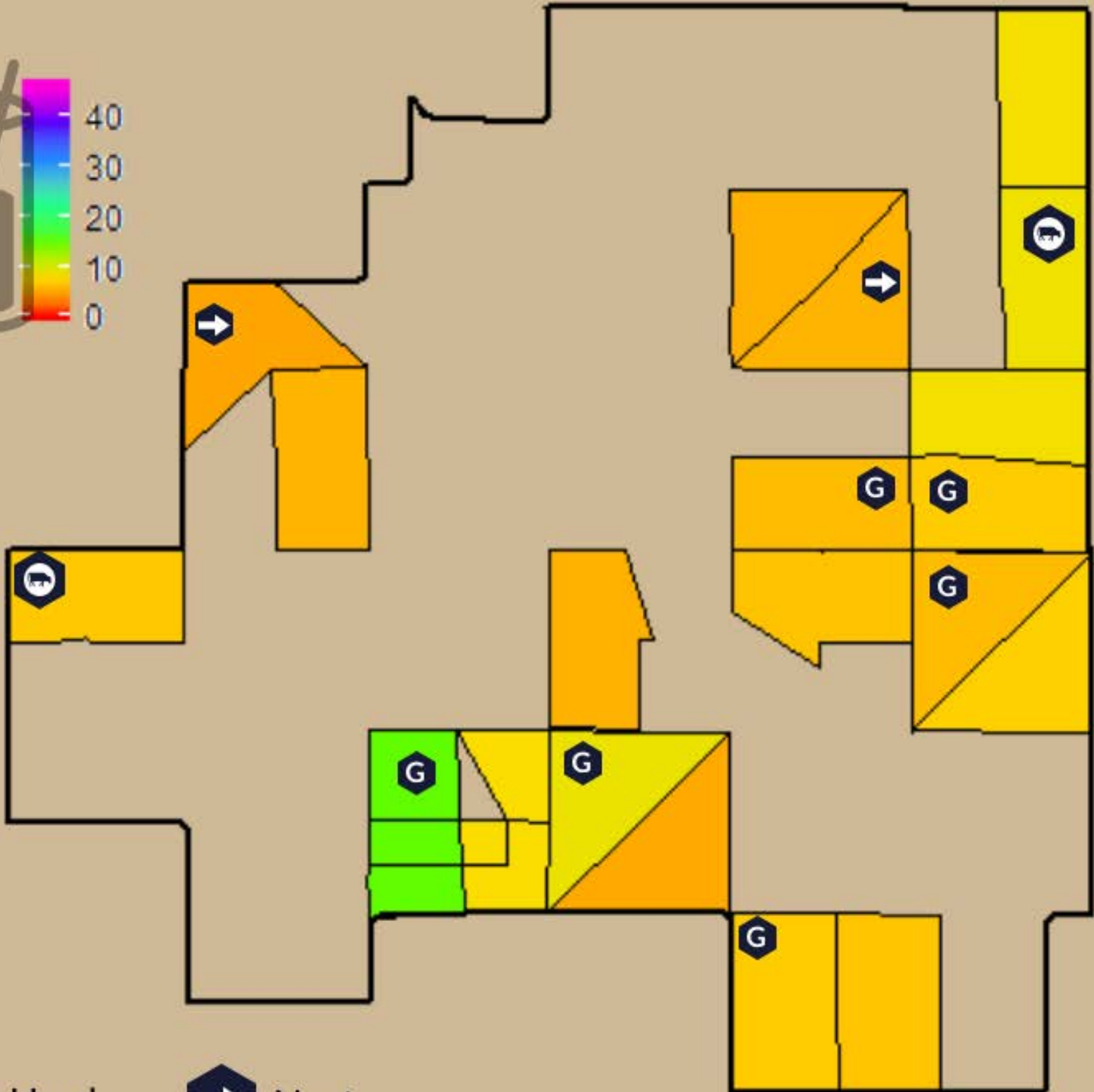
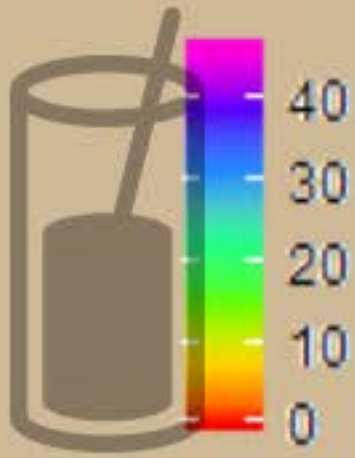
Soil Moisture Distribution

What's in our cup?

Not a whole lot.

Current Soil Moisture

2020-07-19

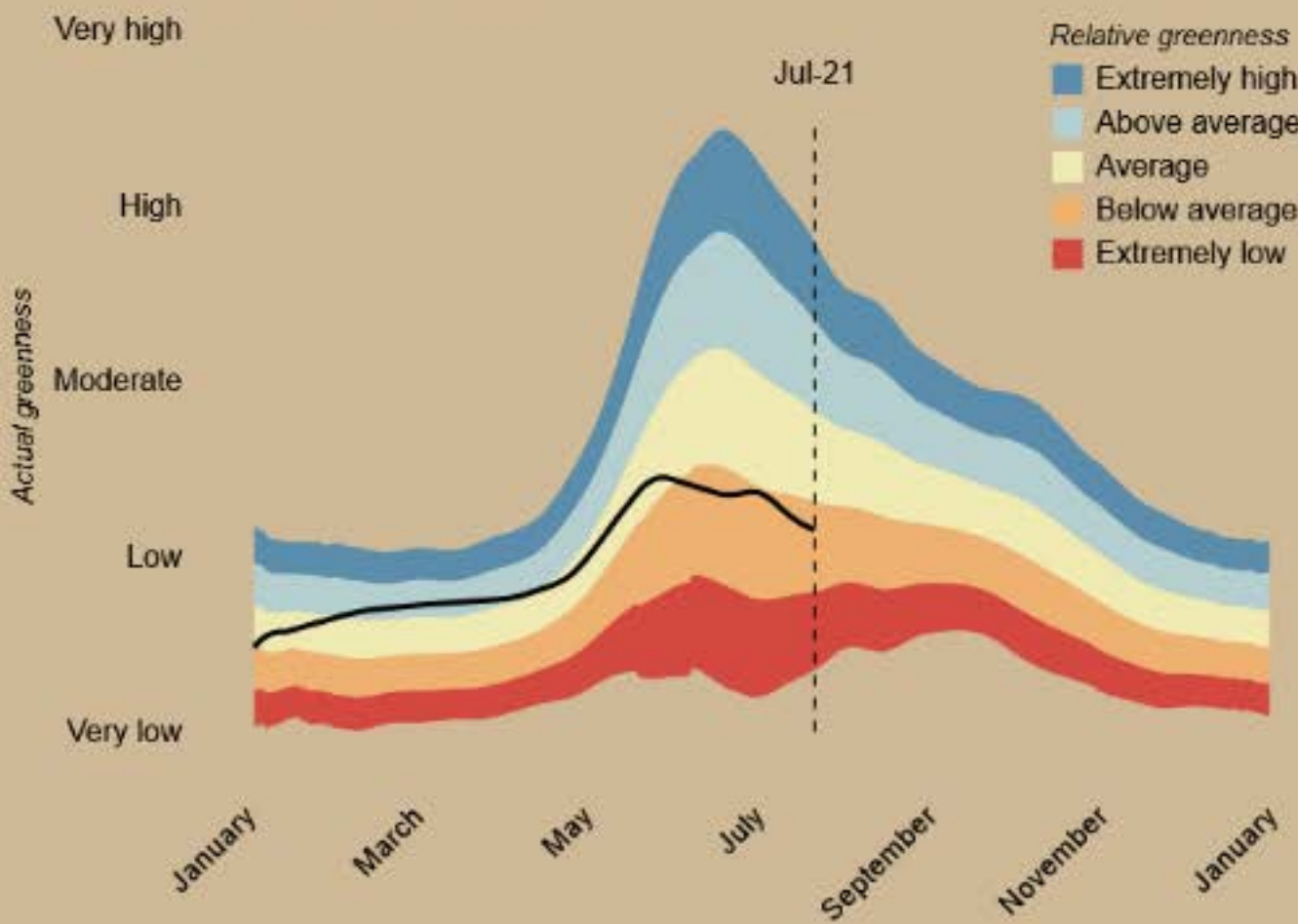
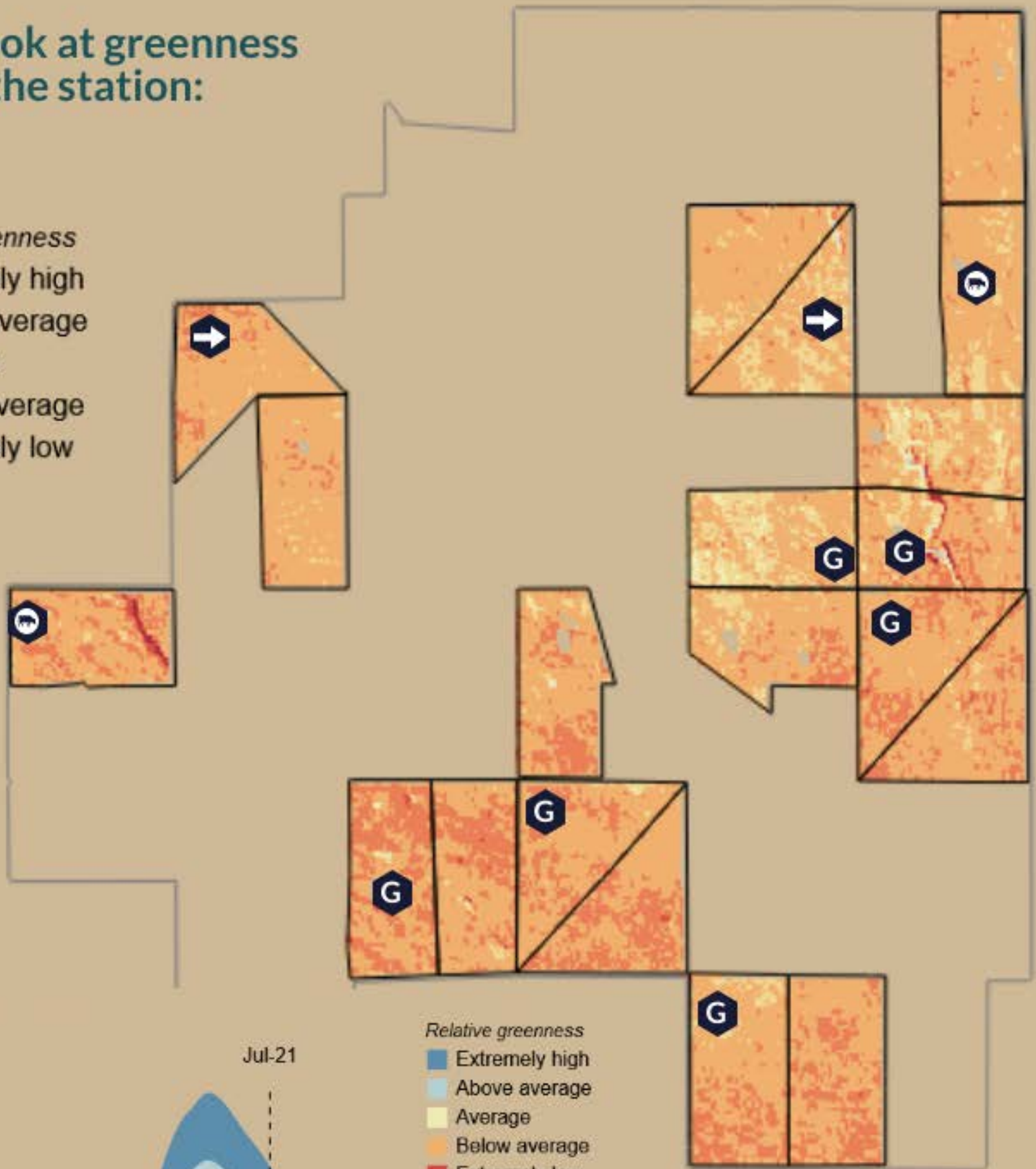


- Herd
- Next
- Grazed
- Rest

A detailed look at greenness across the station:



- Relative greenness*
- Extremely high
 - Above average
 - Average
 - Below average
 - Extremely low



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- Extremely high
 - Above average
 - Average
 - Below average
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- Herd
- Next
- Grazed
- Rest

Highway

Ridgeline

Pasture Day: 23

Moved in: July 20th



E **F**
NOTE: Empty (E) is set at 300 lbs/acre

E **F**
NOTE: Empty (E) is set at 400 lbs/acre

Drought VOR Threshold



■ Pasture Threshold ■ Entry VOR ■ Exit VOR







Let's recall what we planned:

Rotation 5:

Start Date: September 21

Max Days: Until Oct 2

CARM1 in Nighthawk and CARM2 Ridgeline.

About 10 days in last pastures.

Grazing 9 pastures and only resting one, which is HQ.

Rest: Headquarters to ensure a grassbank/heterogeneity.



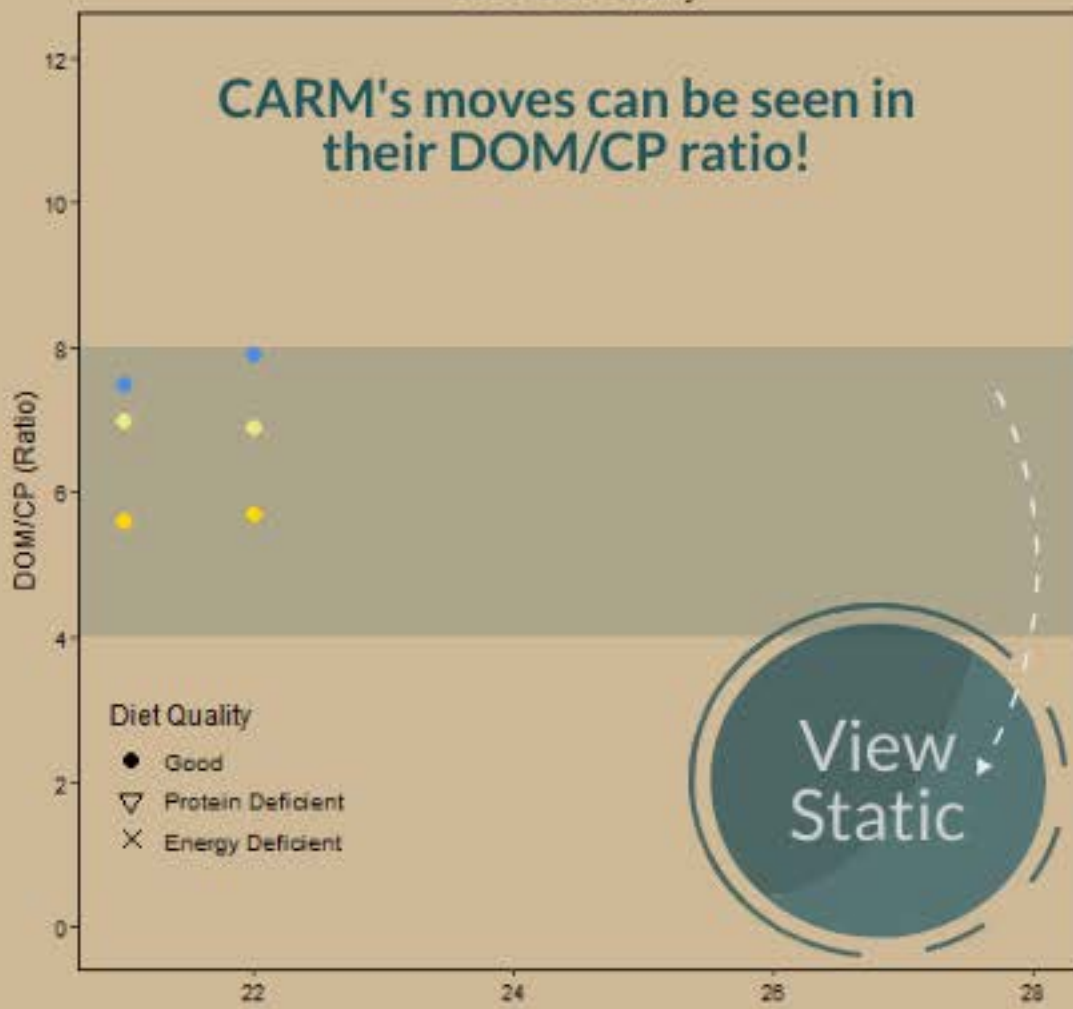
**Wait a minute,
CARM 2 entered
Rotation 5
63 days EARLIER
than planned?!**

April discussion and votes: The group unanimously voted to confirm: there will be a Max day trigger of 42 on rotations 3 and 4, but the same VOR trigger will also be in place; 2020 will use the same drought triggers as the 2019.

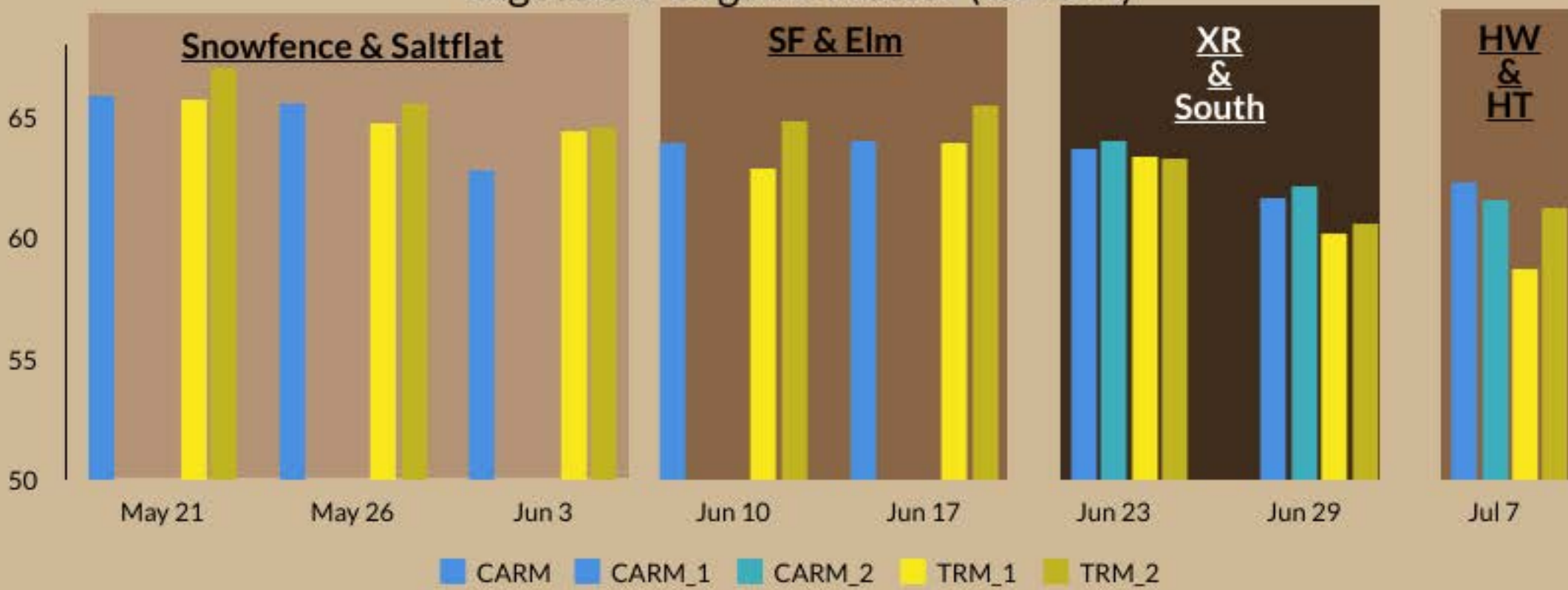
With 71 days left in the season, the Stakeholders may discuss management adaptations at Data Day.



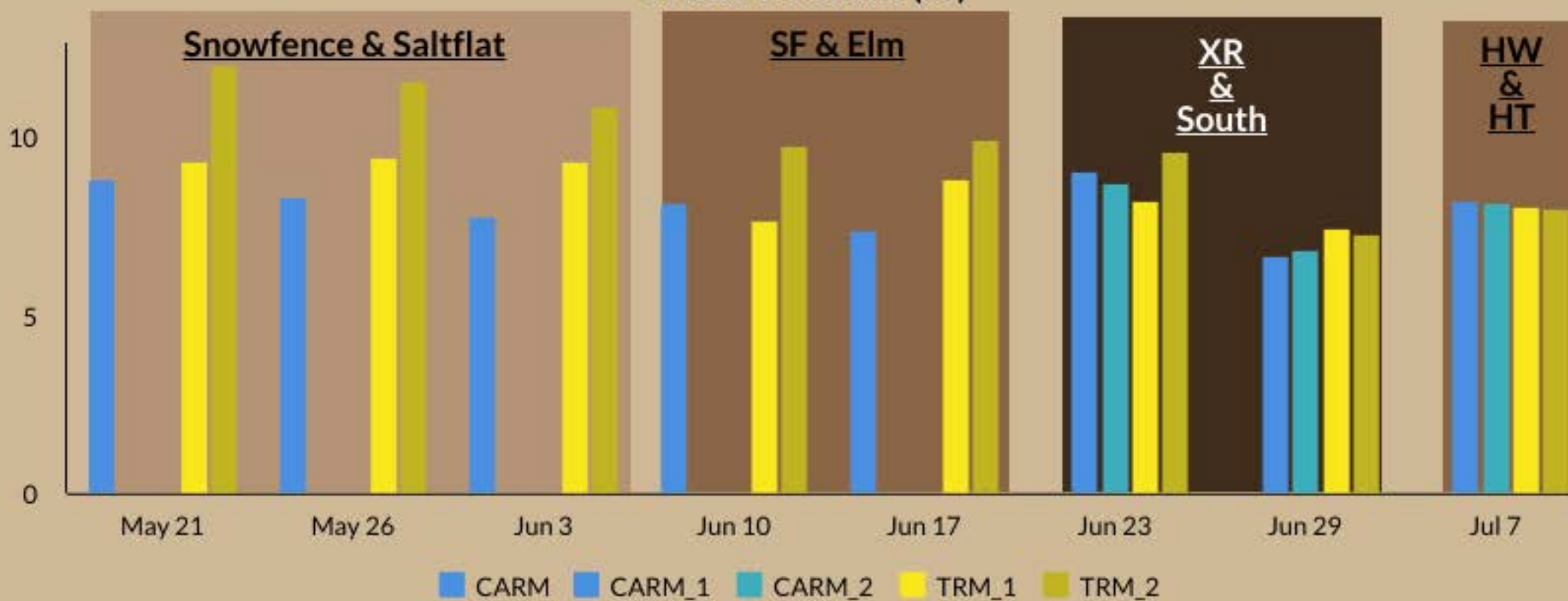
CARM's moves can be seen in their DOM/CP ratio!



Digestible Organic Matter (%DOM)



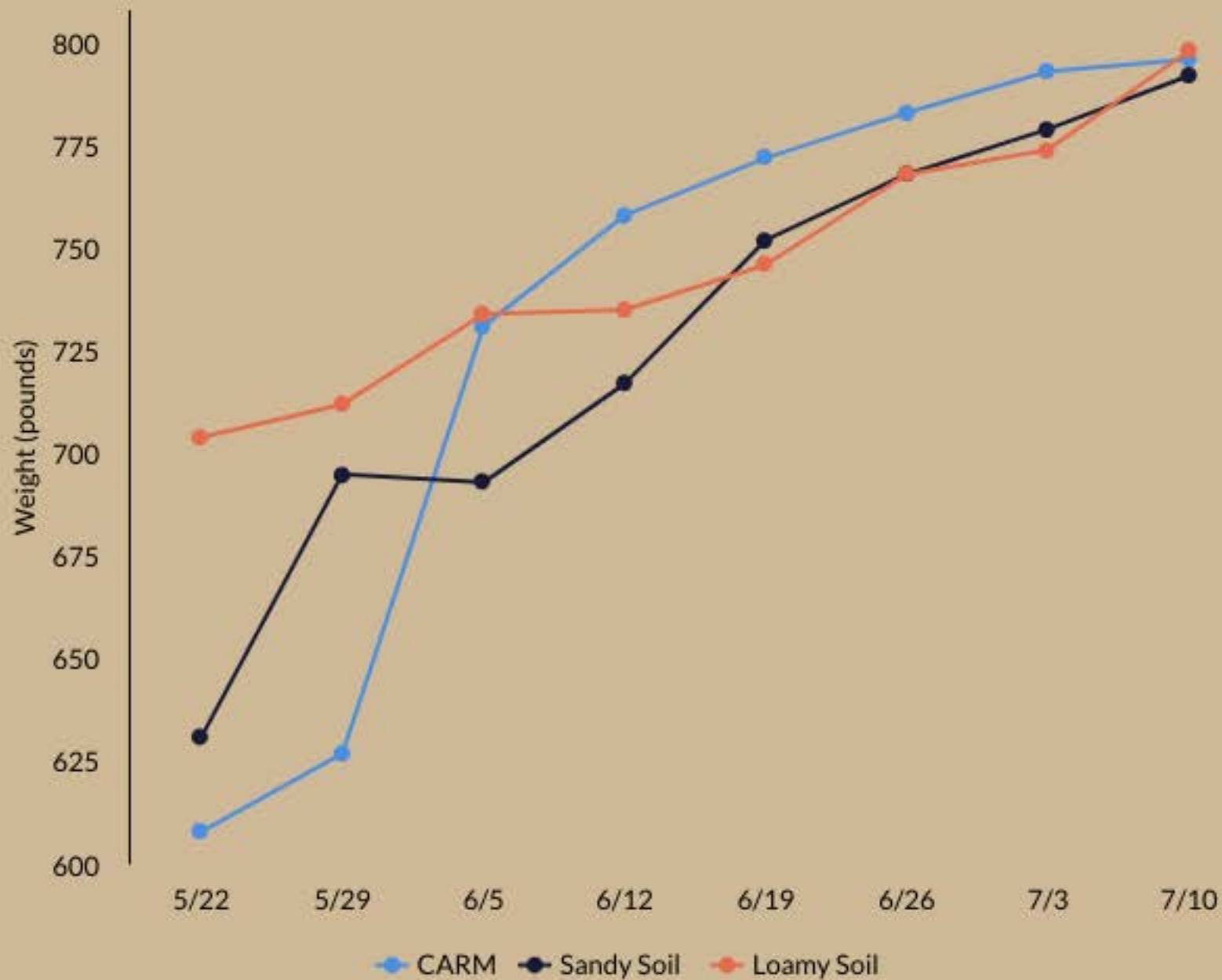
Crude Protein (%)



Remote WOW

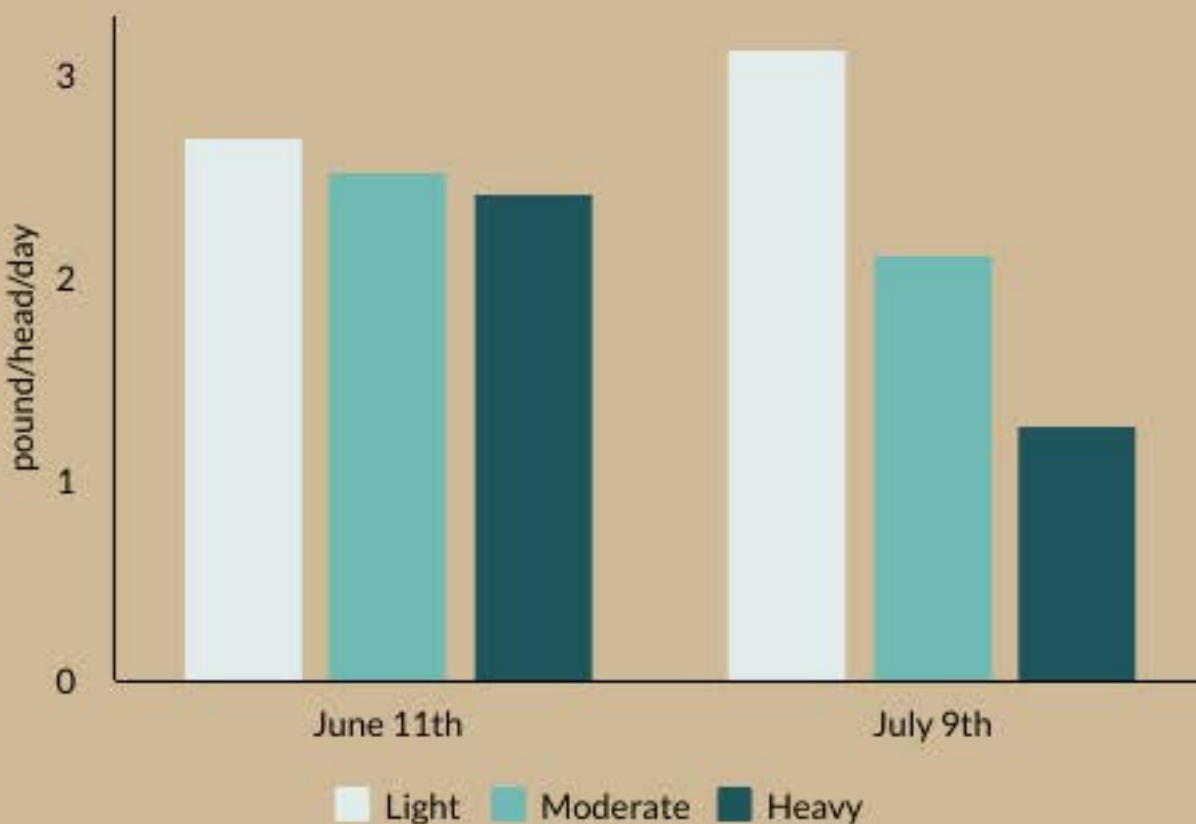


Walk-over Weigh Scale Data



Average Daily Gains

Average Daily Gains (28 Days)



Stocking Rate

Light: 17 head

Moderate: 23 head

Heavy: 34 head

Steers per 320 acres

Note: Next weights will be recorded Aug 6th



Decision Recap

Current Rotation --->

CARM 1

Rotation 4:

Start Date: August 10

Max Days: 42

VOR trigger: same

CARM1 in Highway and CARM2 in Hilltank

This should not negatively impact Fourwing saltbush. It should help reach shortgrass goals in Hilltank.

CARM 2

Rotation 5:

Start Date: September 21

Max Days: Until Oct 2

CARM1 in Nighthawk and CARM2 Ridgeline.

About 10 days in last pastures.

Grazing 9 pastures and only resting one, which is HQ.

Rest: Headquarters to ensure a grassbank/heterogeneity.

April discussion and votes: The group unanimously voted to confirm: there will be a Max day trigger of 42 on rotations 3 and 4, but the same VOR trigger will also be in place; 2020 will use the same drought triggers as the 2019.

Pasture	What we wanted to happen	What actually happened			
	Notes from April	Date In	Date Out	Trigger Used	Notes
1) Snowfence & Saltflat	Gates open between, Shoot for 21-24 days, measure VOR separate & use average to gauge veg trigger, cattle gains, 5/15 - 6/8	15-May	4-Jun	Max Days	
2) Saltflat & Elm	Gates open between, Shoot for 21-24 days, measure VOR separate & use average to gauge veg trigger, cattle gains, 6/8 - 6/29	4-Jun	18-Jun	VOR Threshold	Left almost two weeks earlier than planned.
3.1) Crossroads	Reduce VO for MCLO (< 5cm) 6/29-8/10	18-Jun	1-Jul	VOR Threshold	Used drought threshold
3.2) South	Reduce VO for MCLO (< 5cm) 6/29-8/10	18-Jun	1-Jul	VOR Threshold	Used drought threshold
4.1) Highway	Reduce VO for MCLO (< 5cm) 8/10 - 9/21	1-Jul			
4.2) Hilltank	MCLO 8/10 - 9/21	1-Jul	20-Jul	VOR Threshold	Used drought threshold
5.1) Nighthawk	9/21 - end of season				
5.2) Ridgeline	9/21 - end of season	20-Jul			
6) Headquarters	Rest				



Up & Coming

- July 30th - Virtual Tour & Data Day
- August 3rd - Split-herd weights
- August 6th - 28-Day Weights
- August 17th - CARM 2/3 Season Weigh

On behalf of the USDA-ARS
Rangeland Resources & Systems Research Unit,
I thank you all
for your continued participation
in this project.

Happy Trails!



For detailed precipitation
data, maps, last year's
updates, Scientist bios, and
CARM documents, see our
website:



ALL access data!