CARM 2 moved!

Dive into the details...

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

Herd
- Next

Grazed
- Rest

Hilltank

Crossroads

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

Headquarters

Salt Flat

Snowfence

Elm

Highway

G

G

G

G

G

G

G

G

G
What’s in our cup?

It will be interesting to see how much of this week’s rain will end up in our cup.
A detailed look at greenness across the station:

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

Actual greenness:
- Very high
- High
- Moderate
- Low
- Very low

Timeline:
- January
- March
- May
- July
- September
- November
- January
**Nighthawk**

- Moved In: Aug 6th
- Entry VOR: 488 lbs/acre
- July Drought Meeting Conclusion: Should carry to end season, possibly 6-10 days short.

**Ridgeline**

- Moved In: Jul 20th
- Entry VOR: 581 lbs/acre
- July Drought Meeting Conclusion: Graze to VOR Threshold, finish season in HQ.

**What we've left behind**

We have had to push the vegetation this year.
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.

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.

When options get slim, appears cattle will graze on just about anything.

Red Three-awn
Aristida purpurea
The poor quality feed is showing.

Diet Quality
- Good
- Protein Deficient
- Energy Deficient

Digestible Organic Matter (%DOM)

Snowfence & Saltflat
SF & Elm
XR & South
HW & HT

May 21, May 26, Jun 3, Jun 10, Jun 17, Jun 23, Jun 29, Jul 7, Jul 16, Jul 20, Jul 28

Crude Protein (%)

Snowfence & Saltflat
SF & Elm
XR & South
HW & HT

May 21, May 26, Jun 3, Jun 10, Jun 17, Jun 23, Jun 29, Jul 7, Jul 16, Jul 20, Jul 28
No surprise here, when we compare our studies from last year to this year we're coming up short.

Poor grass, poor gains.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light stocking: 1&lt;sup&gt;st&lt;/sup&gt; 28 days</td>
<td>4.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Moderate stocking: 1&lt;sup&gt;st&lt;/sup&gt; 28 days</td>
<td>3.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Heavy stocking: 1&lt;sup&gt;st&lt;/sup&gt; 28 days</td>
<td>3.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Light stocking: 2&lt;sup&gt;nd&lt;/sup&gt; 28 days</td>
<td>3.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Moderate stocking: 2&lt;sup&gt;nd&lt;/sup&gt; 28 days</td>
<td>3.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Heavy stocking: 2&lt;sup&gt;nd&lt;/sup&gt; 28 days</td>
<td>3.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Light stocking: 3&lt;sup&gt;rd&lt;/sup&gt; 28 days</td>
<td>1.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Moderate stocking: 3&lt;sup&gt;rd&lt;/sup&gt; 28 days</td>
<td>2.2</td>
<td>0.4</td>
</tr>
<tr>
<td>Heavy stocking: 3&lt;sup&gt;rd&lt;/sup&gt; 28 days</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>CARM: first third of grazing season (about 45 days)</td>
<td>3.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Low-High-Low: Low-stock density gains (about 80 days)</td>
<td>2.8</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Pictures never do the prairie justice.
CARM 1: Highway, Aug 4th
VOR: 304 lbs/acre, 1.0 cm
# Decision Recap

**Current Rotation --->**

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## CARM 1 & 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.

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### What we wanted to happen vs. What actually happened

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

Aug 12th

CARM 2: Ridgeline

Up & Coming

- August 18th - TRM GPS collar battery swap
- August 19th - CARM 2/3 season weigh, collar battery swap

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!