

## AGM Stakeholder Meeting 4/27/15 “Cliffnotes”

### **Present:**

Kim Obele  
Terry Schultz  
Rachel Murph  
Jason Kern  
Andy Lawrence  
Lauren Porensky  
Craig Lawrence  
Jake Thomas  
Jeff Thomas  
Marshall Frasier  
Gillian Bee  
Ted Tombs  
Casey Matney  
David Augustine  
Justin Derner  
Hailey Wilmer (taking notes)

### **1. Agenda:**

#### **Goals for meeting:**

- 1) Make final decisions on a) threshold trigger(s) for moving cattle between pastures, and b) grazing sequence of pastures for 2015**
- 2) Site visit to see how the patch burned areas look**
- 3) How does the Shortgrass system function?**

- 1) Introductions of Stakeholder Group (Justin)
- 2) 2015 Grazing decisions (David and Justin)
  - a. Decisions made already:
    - i. Grazing season dates - May 15 to October 1
    - ii. Herd size – one herd
    - iii. Patch burns – two burns conducted in December 2014
    - iv. Stocking rate increased by 5% (10 head in AGM herd)
  - b. Decisions to be made:
    - i. Threshold trigger to move cattle:
      1. VOR height
      2. Max days in pasture
    - ii. Grazing sequence of pastures
- 3) Economics Analysis (Marshall)
- 4) Field visit to patch burns
- 5) Lunch
- 6) How does the Shortgrass system function (Marshall)
  - a. Developing an Ecosystem Conceptual Model
- 7) Other?

## 2. Morning Welcome and Data Overview

Justin Derner and David Augustine: Welcome and introduction of Jake and Craig. Update on Tammy and fecal sampling. Updates on graduate students and field crews for the summer. David has a \$350,000 NIFA grant to continue bird research.

Justin: Objectives for today's meeting:

- An overview of monitoring data/where we are from David.
- a pasture tour will highlight the earliest pastures in the rotation and the patch burn we did last fall
- final decisions for the summer before cattle turn out May 15<sup>th</sup>
- Marshall Frasier will discuss ecological modeling
- Build a conceptual model of the system as a group.

1. Status report, grazing sequence update- David Augustine
  - a. Review of current pasture sequence.
  - b. Estimated time in pasture based on current triggers.
    - i. Do we want a days trigger in addition to a VOR trigger and cattle behavior trigger?
    - ii. In 2014 the day limit prompted the cattle to move each time they moved.
    - iii. The group discussed using day thresholds as a planning tool and understanding the tradeoff for different thresholds/triggers in wet and dry years.

## 3. Tour of pastures where patch burns were conducted

## 4. Marshall Frasier: Economic Modeling Presentation

LUNCH

## 5. Stakeholder group system model construction

- a. Diagramming starting states, ecological processes, and outcomes on CPER.
- b. See attached.

## 6. 2015 Grazing sequence and triggers discussion

- c. The sequence suggested at the January meeting was summarized in this table created and emailed by D.A.:

<u>Pasture</u>	<u>Date</u>	<u>Trigger</u>	<u>Days in Pasture</u>	<u>Factors Considered</u>
Snowfence	5/15	leave when 350 lbs/ac new growth available on burn in Saltflat	14	Highest biomass of cool-season grasses in this pasture, hence grazing here early in season until growth on burn is ready

Saltflat	5/2 9/1 5	when biomass on burn transect (N=8) < 200 lbs/ac or mean residual on all uplands (N = 8 on burn and 8 off burn) < 450 lbs/ac or observations of cattle behavior indicate they have stopped using the burn during their primary morning graze period	26	Enter this pasture when forage on burn is optimal for cattle in terms of quantity and quality
(Snowfence)		If biomass on burn in Nighthawk >350 lbs/ac, go there next; if not, go back into Snowfence	0	Only go back thru Snowfence at this time IF greenup on Nightwank burn is slower than projected OR if biomass on burn in Saltflat declines faster than projected (if either occurs, then use Snowfence 1 week and then move to Nighthawk); unlikely given current soil moisture
Nighthawk	6/2 4/1 5	when biomass on burn transect (N=8) < 200 lbs/ac or mean residual on all uplands (N = 8 on burn and 8 off burn) < 300 lbs/ac or observations of cattle behavior indicate they have stopped using the burn during their primary morning graze period	11	Use this pasture next to get cattle to utilize burn when forage quality is still higher than off-burn forage
Highway	7/5 /15	residual on uplands < 300 lbs/ac	13	Use this pasture in July/Aug due to high abundance of blue grama
South	7/1 8/1 5	residual on uplands < 400 lbs/ac	14	Grazing here in July avoids impacts on saltbush
Crossroads	8/1 /15	residual on uplands < 400 lbs/ac, or move out of here by Aug 10 to reduce impact on saltbush	15	Move here next, due to lack of saltbush, high abundance of cool season grasses, and near to souoth
HQ	8/1 6/1 5	residual on uplands < 450 lbs/ac	16	Grazing here in August is compromise, allowing Elm to be grazed later when there may be less impact on cattle weight gains - good mix of C4 and C3 forage, but not ideal for the saltbush in this pasture; sequence does provide benefits to saltbush in South and Ridgeline.
Elm	9/1 /15	residual on uplands < 400 lbs/ac	23	Best to graze this as late as possible to maintain cattle weight gains (high cool-season abundance here); avoids grazing this pasture earlier in the season (July) when forage quality is low
Snowfence	9/2 6/1 5	Plan to go here for at least 7 days (not worth it for very short time), or more if the veg criteria in Elm is met sooner than 9/23	7	Good for late Sept grazing due to highest abundance of cool-season grasses; will not use at this time if Snowfence was grazed after Saltflat

- d. The group decided between the following trigger options:
  - i. a VOR threshold with reference to the cattle behavior checklist
  - ii. a max days threshold for an average year
  - iii. a max days threshold plus an additional percent allowable

The group ultimately decided to go with VOR as trigger to move (with reference livestock behavior checklist) and not to use any day limits as triggers.

- e. The group decided to Saltflat first until it reaches 350lbs/acre.