Grazing Smut Grass

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Smut Grass Pasture/ over grazed bahia

Giant Smutgrass

Economic Threshold

- Smut grass grazing may not be for everyone.
- There is an economic threshold. Where does smut grass stop being a weed and start being a forage?
- Some ranches need to keep treating it like a weed.
- Some ranches need to start treating it like a forage.
- Once it becomes a forage, how do you manage it and what do you get?

Background…Smut grass as a forage

- Largest calves on Big Cypress and Brighton reservations were raised primarily on smut grass pastures.
- Busch-Robert Cypress was mowing strips in smut grass.
- Cattle were selecting the young/mowed smut grass.

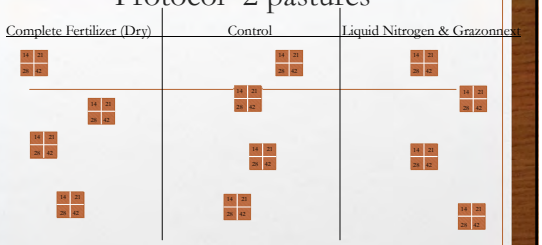
Smut Grass management techniques

- Can be managed through 5 basic strategies:
- 1.Burning-reduces biomass of large/old plants.
- 2. Mowing
- 3. Herbicide Application
- 4. Intensive Grazing
- 5. Roller/chopper

Nutritional Value of Smut Grass Study

- Diamond R Fertilizer donated liquid fertilizer containers to be used as exclusion cages.
- NRCS donated collection hoops.
- Seminole Tribe donated pastures/access.
- Experiment carried out in 2 separate locations…Robert Cypress's pasture and Seminole Tribe of Florida Board of Director's Pasture. (Both in Big Cypress)

Protocol- 2 pastures



- Collections on days 14, 21, 28, and 42
- Composite Residual samples every 21 days

Exclusion Cage

Measuring 21 day growth

Smut Grass Trial Field day

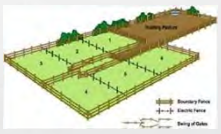
Results:

Cypress	CP %	TDN %
Liquid N only	13.8	54.4
Dry(20-0-10)	14.5	57.3
Control	11.9	56
Board		
Liquid N Only	18.1	56.3
Dry (20-0-10)	17.8	58.4
Control	14.4	57.5

Other Interesting Data:

- Non-fertilized thistle- 15.4% protein, TDN-60%.
- Non-fertilized match stem- 13.4% CP. TDN-60%
- Fertilized Cow-Itch vine- 16.6% CP, TDN-67%
- Un-fertilized ragweed- 25.4% CP, TDN-63%

Next Steps



Pasture X

- 20 acres in a secret location….

Pasture X

- 39 head of cattle on 20 acres of smut grass.
- Smut grass covering approximately 80-100% at the start of the trial.
- (4) 5 acre paddocks fenced.
- Study to determine grazing capacity of smut grass.
- 2 year old heifers from the Miccosukee lease, near the Big Cypress Reservation

Getting the paddocks ready

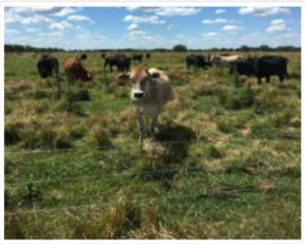
- Each paddock needed water. A 1st generation solar well was utilized, and 500 gallon tubs were placed between paddock 1 and 2, and paddock 3 and 4.
- Each paddock was mowed 21 days prior to heifers being turned out.
- The heifers were a little "flighty"
- BCS of heifers was 3.92 average.

1 ton of gator field cubes used over 1.5 months

Grazing smut grass

Shade Structure/Back Rub

Before the spring mow



Competitive Rotational Grazing

- Premise- Cattle stocked at a higher density will more efficiently graze available forage.
- More cows on less acres will lead to a competitive grazing environment.
- Cows are less selective in a CRG system.
- Weeds are consumed at a greater rate in a CRG system.

Pasture X 2018

- Assumed-Smut grass could nutritionally carry the herd…
- Suga Lik was always available for the heifers.
- Feed was provided for 60 days prior to bulls going in/ 30 days after, same treatment as Tribal heifers.
- Goal to increase BCS to 5…surpassed goal.
- Consumption: 10# per head per day
- Goal of 2 pounds per day gain.
- Cost of gain/pound= $.55


Feed Consumption: Actual
vs Planned


Fall Grazing


2018 Half Blood bulls

Pregnancy Check 5/21/18

- 40 head in the pasture….39 were Pasture X heifers. 1 "stray" joined the herd prior to bulls going in.
- 37 confirmed bred.
- 1 heifer OFD both sides.
- 2 heifers with immature tracts.
- Conception percentage -93%

Calf Recap

- First Calf on October, 11 2018.
- 78% of calves on ground on Nov. 14 (32 days)
- 35 calves born. (1 heifer died giving birth, 1 calf a month early, one born 2 weeks later-died) No abortions/unknown losses.
- January 4- Pasture X cow's BCS average 3.5-4.0
- February 20, 2019 Pasture X calves weaned.

Pregnancy Check 6/5/19

- 36 of 38 cows bred- 95% conception rate
- 2 Super American Bulls for 90 day breeding season (January 15th- April 15th)
- Pasture X was over as of 6/5/19
- What's next for Pasture X?
- Pasture X 2.0 is coming
- 80 4wt. heifers arriving 7/19/19

Costs

2018	2019
• Veterinary Expenses- $1829.30	• Veterinary Expenses- $1445.17
• Mowing $450	• Mowing $450
• Fertilizer and spreading $785.66	• Fertilizer and spreading $814.64
• Feed- Walpole $5883.03	• Feed- Walpole $6353.54
• Molasses with mineral package $3352.29	• Molasses with mineral package $4454.75
• Daywork/labor/administrative $1931.95	• Daywork/labor/administrative $2086
• Equipment depreciation $16.49	• Equipment depreciation $17.00

Costs Continued

2018	2019
• Total heifer Costs- $13,363.54	• Total Cow Costs- $15,621.10
• Total Bull costs- $3049.72	• Total Bull costs- $2152.62
• Total Costs for 2018 $17,850.67	• Total Costs for 2019 $18211.28
• Cost per head $469.75	• Cost per head $479.24

Two year total

- $17850.67 (2018) + $18,211.28.72 (2019)= $36,061.95
- $36061.95/38 head= $948.99 per head from 2-3 years old. Average $474.50 per head/year
- 38 head as 1 heifer died during birth.
- Percent Calves weaned- 89.74% 35 calves/39 cows

Costs

2018	2019
• Total $ per weaned calf- $510.02	• N/A
• Total Expense per exposed female $457.71	• Total Expense per exposed female $479.24
• Total pounds of beef raised per acre 357.3#	• N/A

January 2019 Grazing

challenges

- Hurricane
- Fly Load/manure
- Water pump/solar panel/check valve
- Shade- Shade structure and cloth

Water/pump issues/solar panel

Issues

Spring mowing

- Paddocks were mowed separately.
- The day heifers rotated, the mower mowed, to insure return onto 21 day old growth.
- Thistles, Tropical Soda Apple, and Pig weed were the weeds not consumed, and mowing alleviated.
- Mowing reduced thatch material not consumed by the cattle.

Unforeseen Results

- Bahia grass is coming back into the pasture at a rapid rate.
- White clover is coming back.
- Common Bermuda grass is also re-entering the pasture.

Bahia Grass making a comeback

White Clover

Questions?