Grazing Smut Grass

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

<table>
<thead>
<tr>
<th>Complete Fertilizer (Dry)</th>
<th>Control</th>
<th>Liquid Nitrogen &amp; Grazonext</th>
</tr>
</thead>
</table>

- 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:

<table>
<thead>
<tr>
<th></th>
<th>CP %</th>
<th>TDN %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid N only</td>
<td>13.8</td>
<td>54.4</td>
</tr>
<tr>
<td>Dry (20-0-10)</td>
<td>14.5</td>
<td>57.3</td>
</tr>
<tr>
<td>Control</td>
<td>11.9</td>
<td>56</td>
</tr>
<tr>
<td>Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid N Only</td>
<td>16.1</td>
<td>56.3</td>
</tr>
<tr>
<td>Dry (20-0-10)</td>
<td>17.8</td>
<td>58.4</td>
</tr>
<tr>
<td>Control</td>
<td>14.4</td>
<td>57.5</td>
</tr>
</tbody>
</table>

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 1” 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 Lk 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
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
- Veterinary Expenses: $1829.30
- Mowing: $450
- Fertilizer and spreading: $785.66
- Feed - Walpole: $5831.03
- Molasses with mineral package: $3352.29
- Daywork/labor/administrative: $1931.95
- Equipment depreciation: $16.49

2019
- Veterinary Expenses: $1445.17
- Mowing: $450
- Fertilizer and spreading: $814.64
- Feed - Walpole: $6353.54
- Molasses with mineral package: $4454.75
- Daywork/labor/administrative: $2086
- Equipment depreciation: $17.00

Costs Continued

2018
- Total heifer Costs: $13,563.54
- Total Bull costs: $3049.72
- Total Costs for 2018: $17,850.67
- Cost per head: $469.75

2019
- Total Cow Costs: $15,621.10
- Total Bull costs: $2152.62
- Total Costs for 2019: $18211.28
- Cost per head: $479.24

Two year total
- $17,850.67 (2018) + $18,211.28 (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
• Total $ per weaned calf $510.02
• Total Expense per exposed female $457.71
• Total pounds of beef raised per acre 357.3#

2019
• N/A
• Total Expense per exposed female $479.24
• N/A

January 2019 Grazing

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