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Sedge Meadow Ecosystems

- Afton
- Albaton
- Calco
- Colo
- Houghton
- Klossner
- Luton
- Spillville
- Tieville
- Wabash
- Woodbury
- Zook

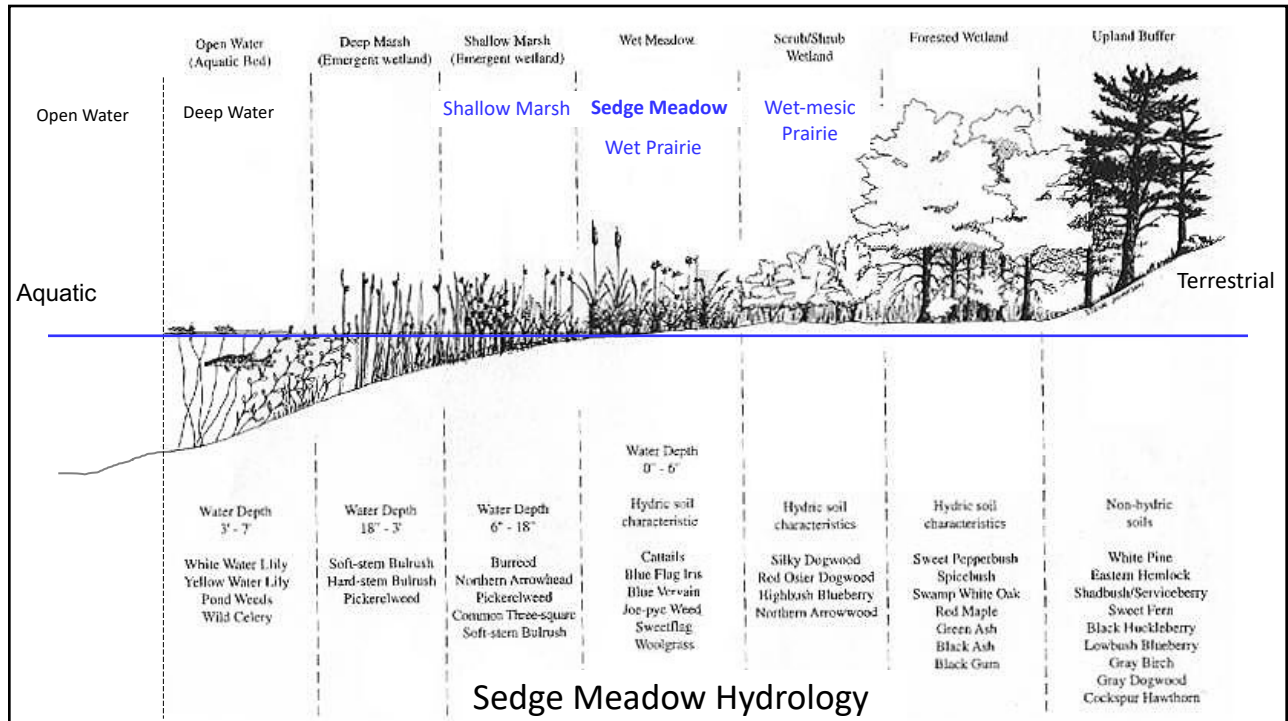
Missouri River Floodplain, near Blue Lake State Park

Tussock meadow, Minnesota

Engeldinger Marsh, Polk County

Sedge meadow Fort Snelling, MN

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LANDFORM REGIONS OF IOWA

Northwest Iowa Plains
Des Moines Lobe
Loess Hills
Missouri Alluvial Plain
Southern Iowa Drift Plain

0 20 40 60 miles
0 40 80 kilometers

**Floristic Inventory and Ecological Assessment
for Paule Preserve, Madison County, Iowa**

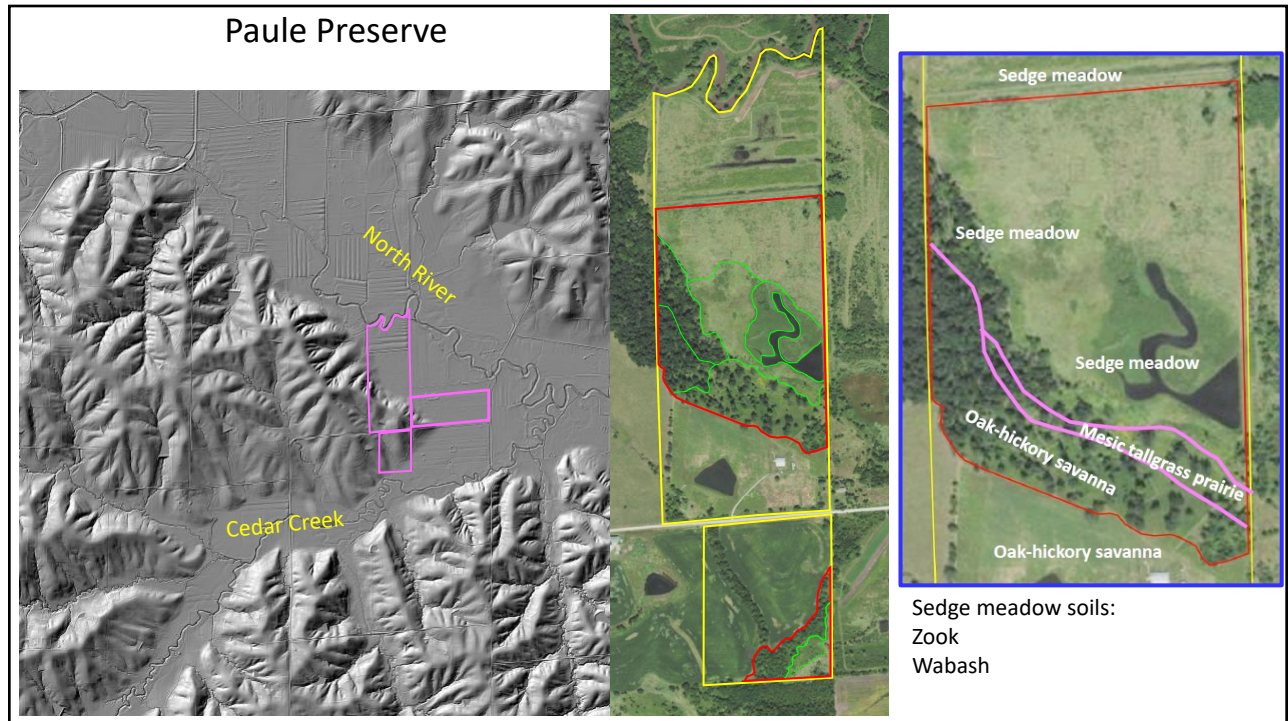
Final Report
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Department of Biology, Drake University
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73448 260th Street, Colo, IA 50056

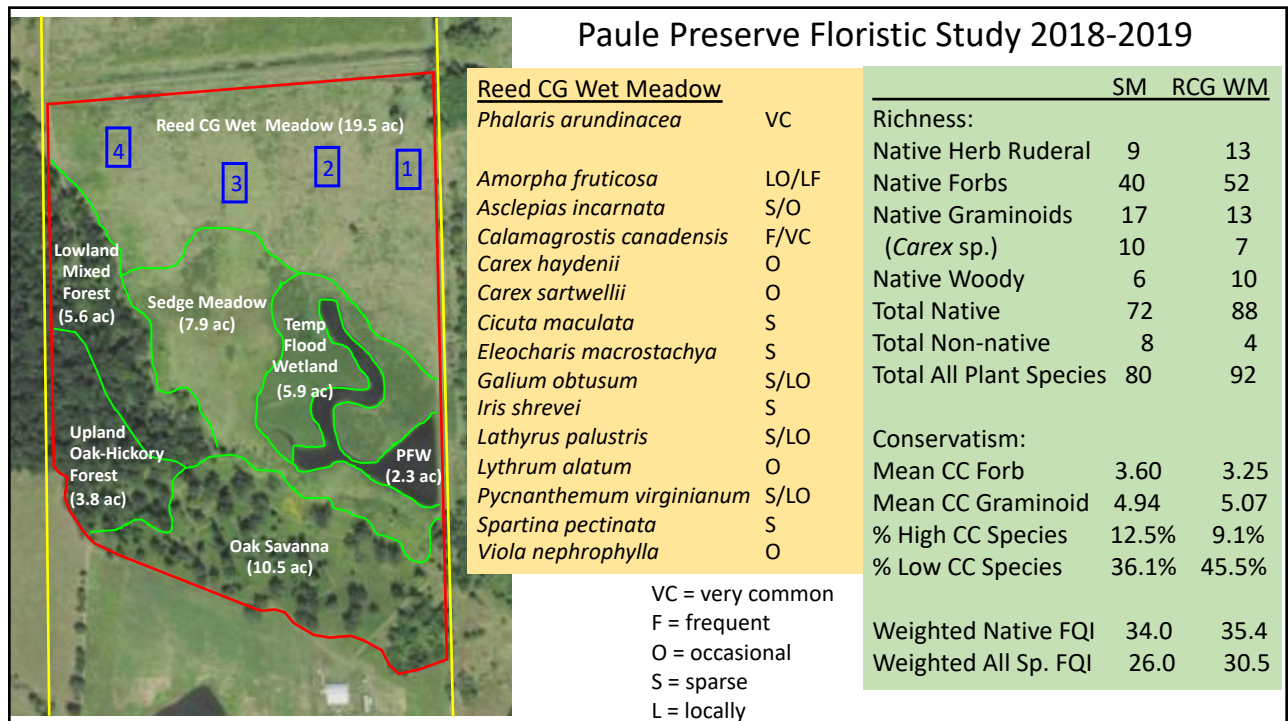
March 14, 2020

- Madison County
- John and Shari Paule
- 210 acres of semi-natural and
- upland and floodplain environ

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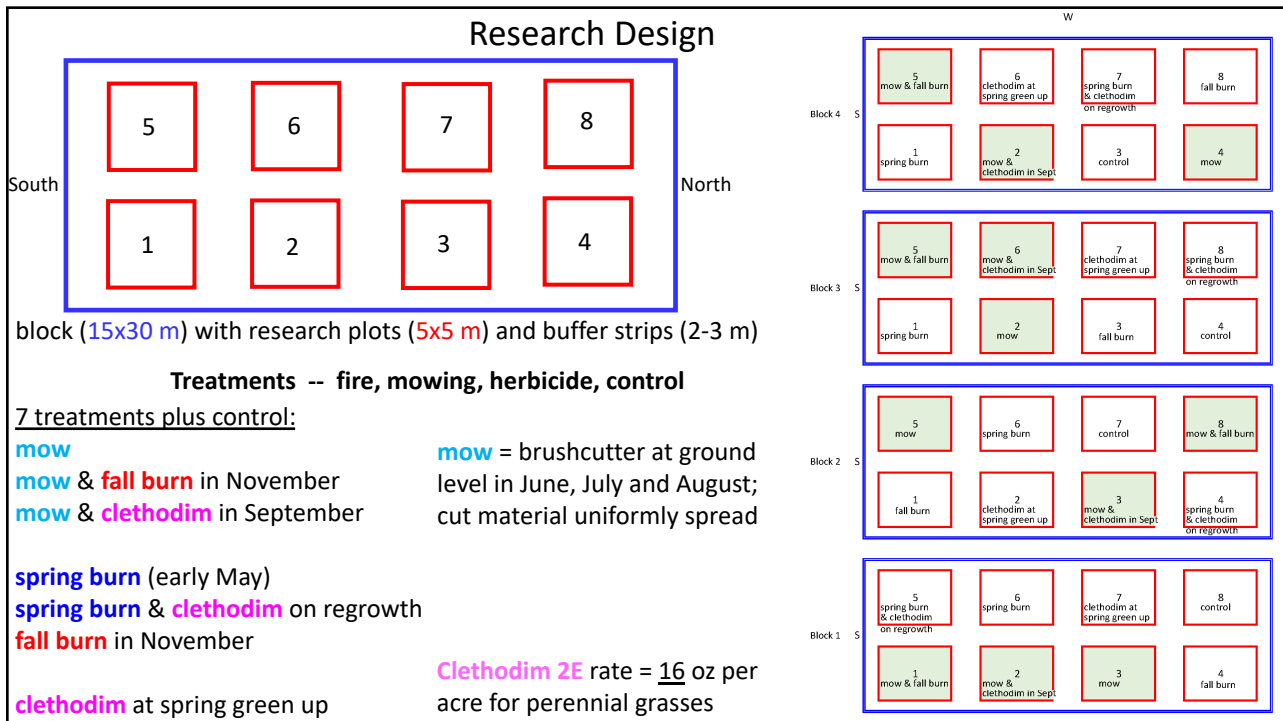
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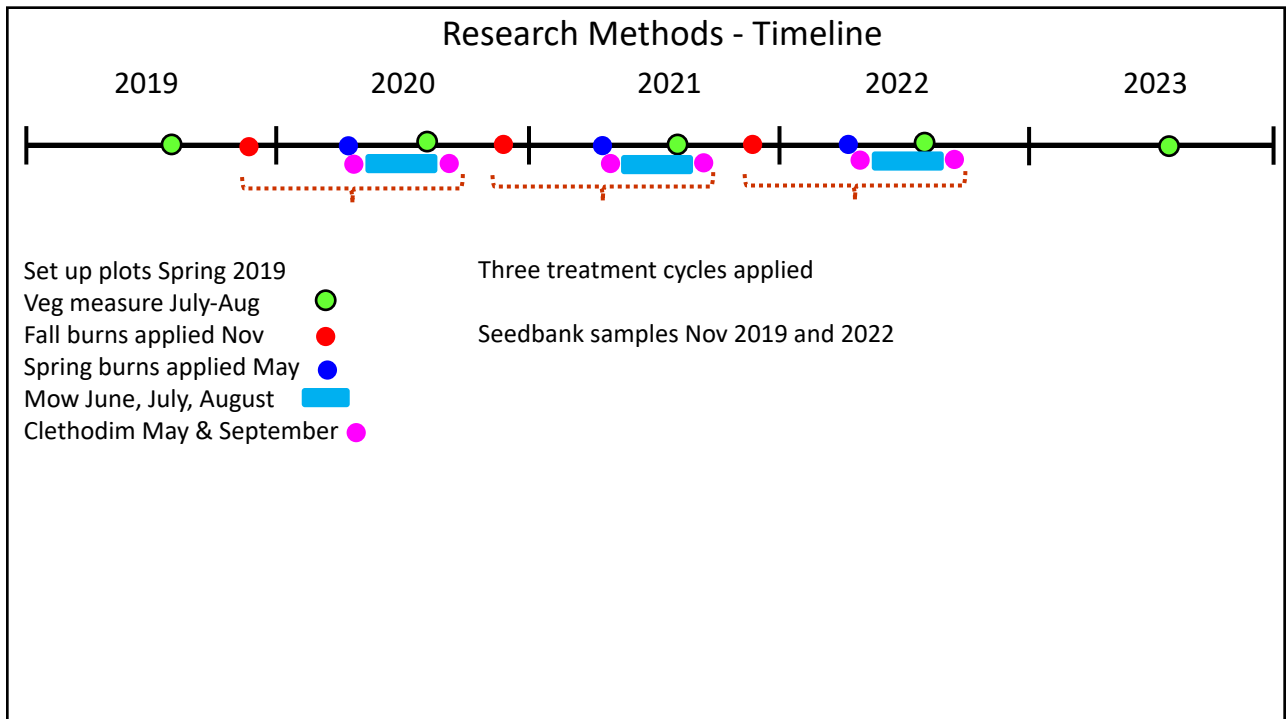
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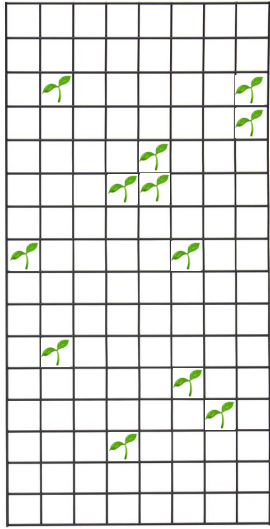


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Research Methods


Vegetation Measurements – Frequency, Density, and Biomass

Frequency – occurrence of ramets in space




12/128 = 9.4%
Absolute Freq

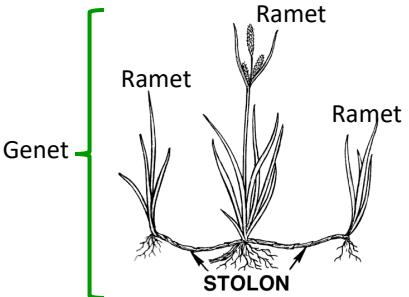
Density – number of ramets in space



Biomass – mass of ramets in space



1. Cut current years growth at ground level
2. Sort by species, place biomass into paper sacks
3. Dry biomass for 24 hours at 150°F
4. Weigh dry biomass for each species



Genet

Ramet

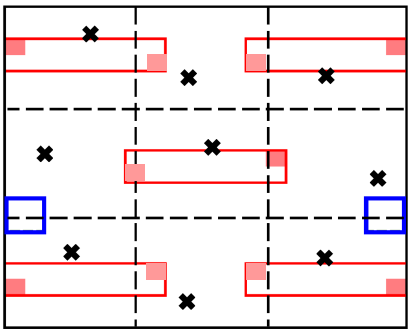
Ramet

Ramet

STOLON

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Vegetation Measurements in 5 x 5 m Treatment Plots



50 x 200 cm quadrat - nested frequency; density in 25x25 cm subquadrat

50 x 50 cm quadrat for biomass samples

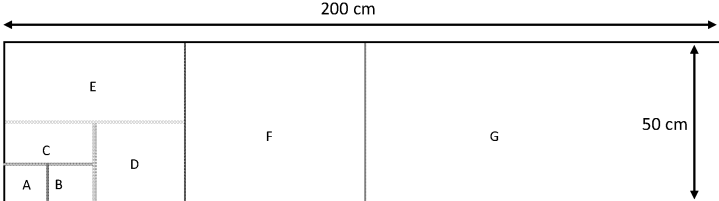
Seedbank sample (soil core)

Absolute Weighted Frequency in 5 quadrats (=5 m²)
Base score = 50 (5x10, if present in subquadrat A in all 5)

Density determined in 10 25x25 cm subquadrats (=0.63 m²)

Biomass collected in 2 50x50 cm quadrats (0.5 m²)
Samples shifted in each year

Absolute Weighted Frequency (%) obtained with 7 nested subquadrats



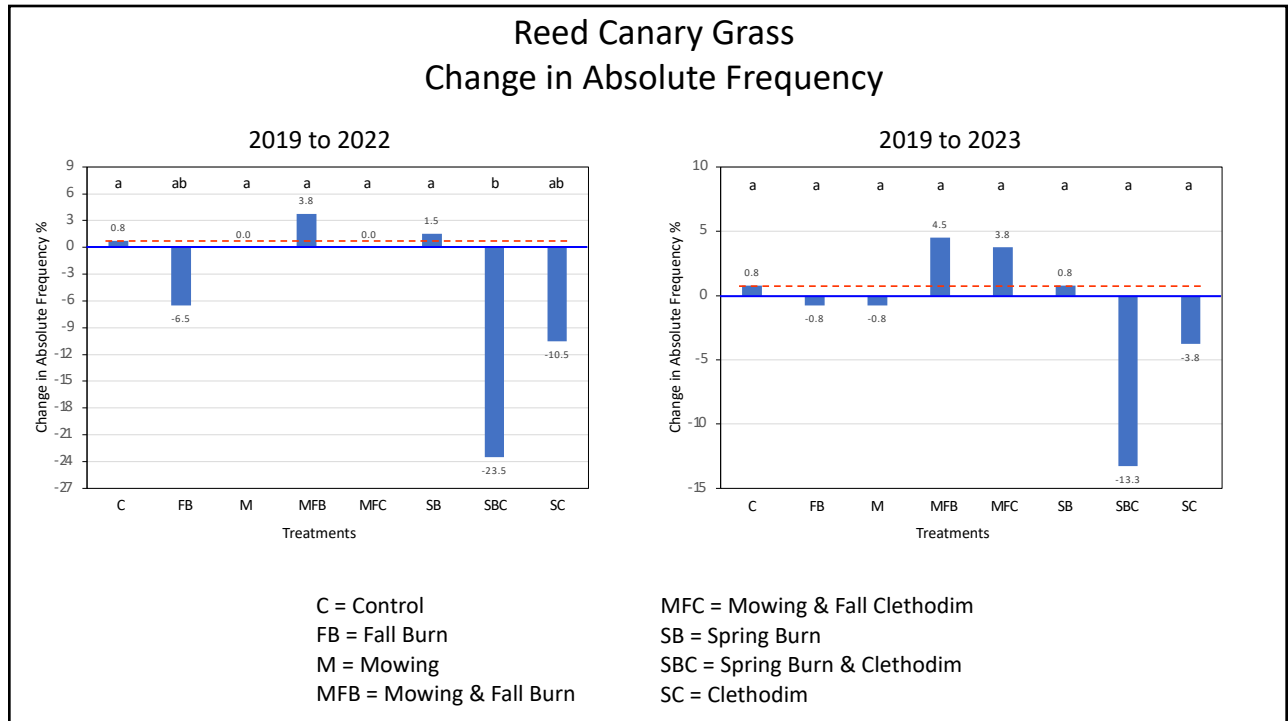
200 cm

50 cm

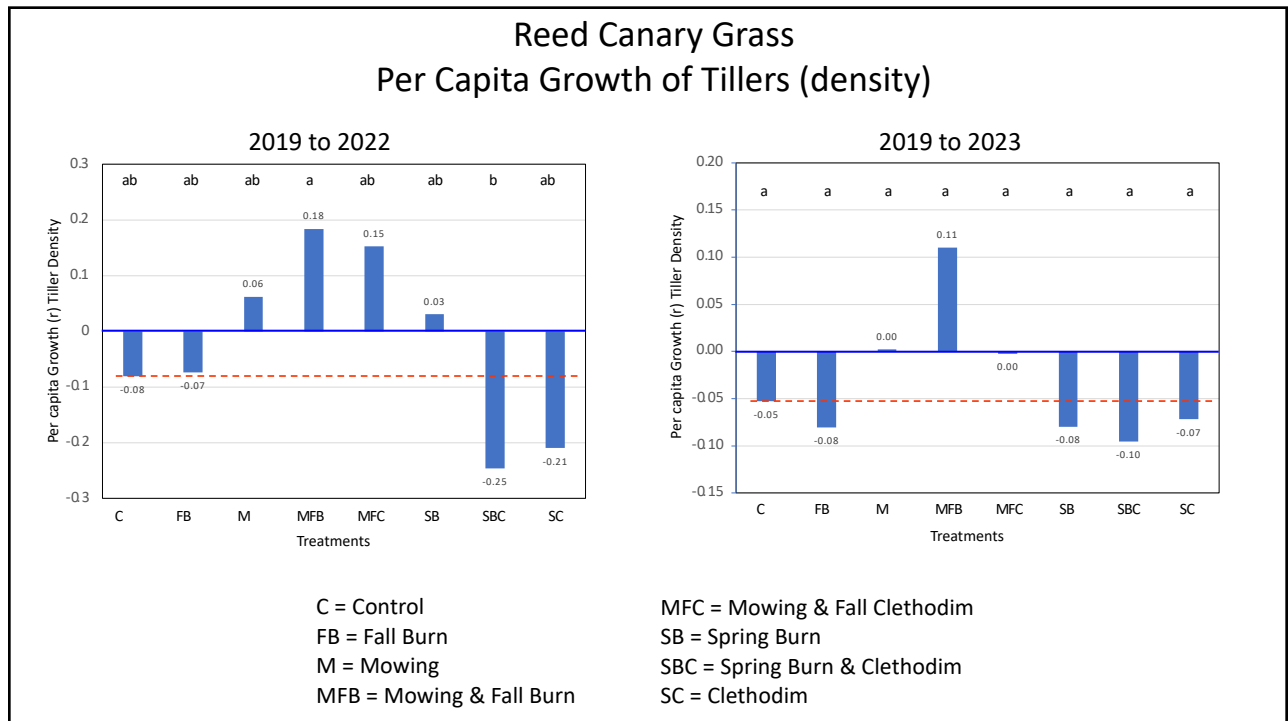
Table 1. Method for obtaining weighted frequency from the nested quadrats.

Subquadrat Size (cm)	Area (cm ²)	Weighted Frequency
A - 12.5x12.5	156.25	10
B - 12.5x25	312.5	8.5
C - 25x25	625	7
D - 25x50	1,250	5.5
E - 50x50	2,500	4
F - 50x100	5,000	2.5
G - 50x200	10,000	1
Plot - 5x5 m	250,000	0.1

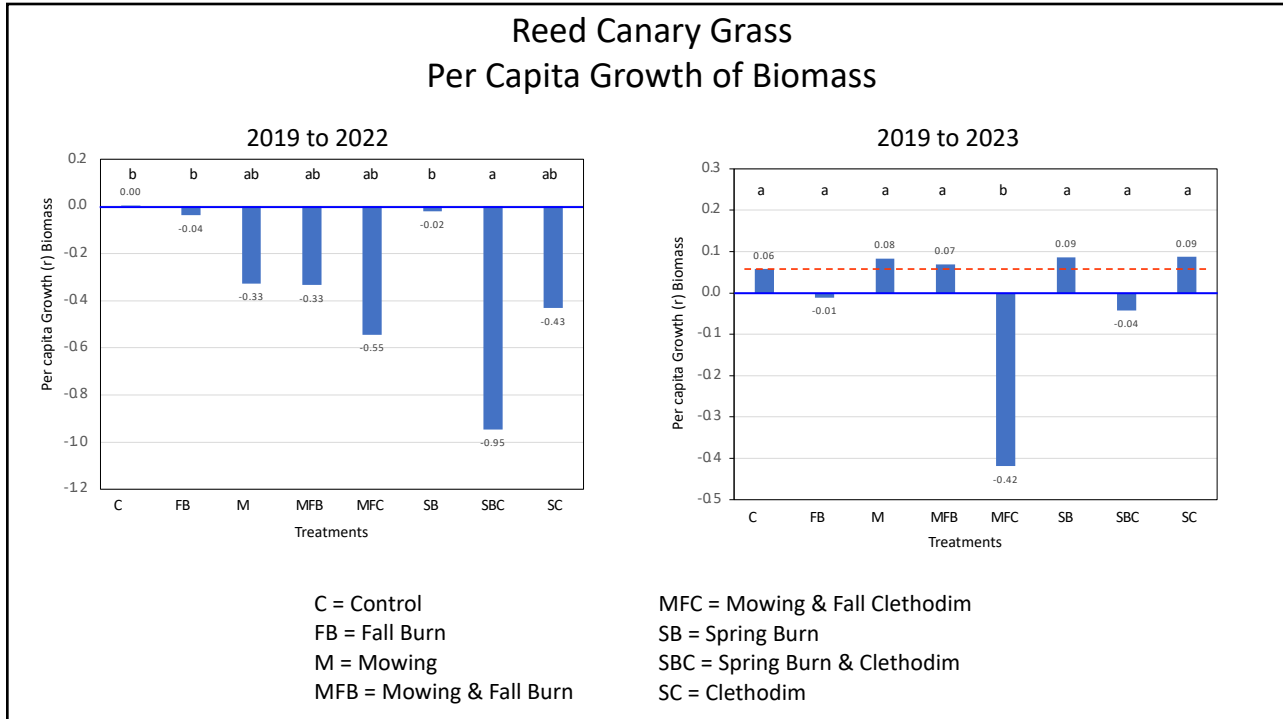
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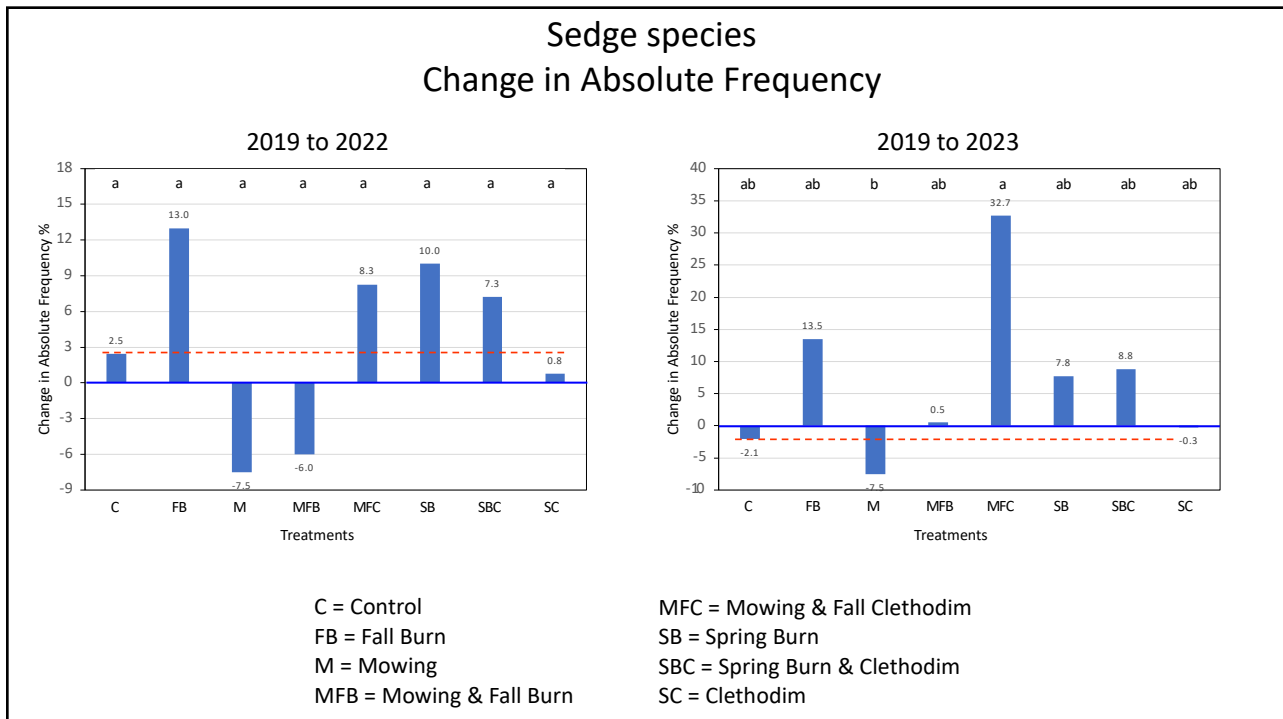
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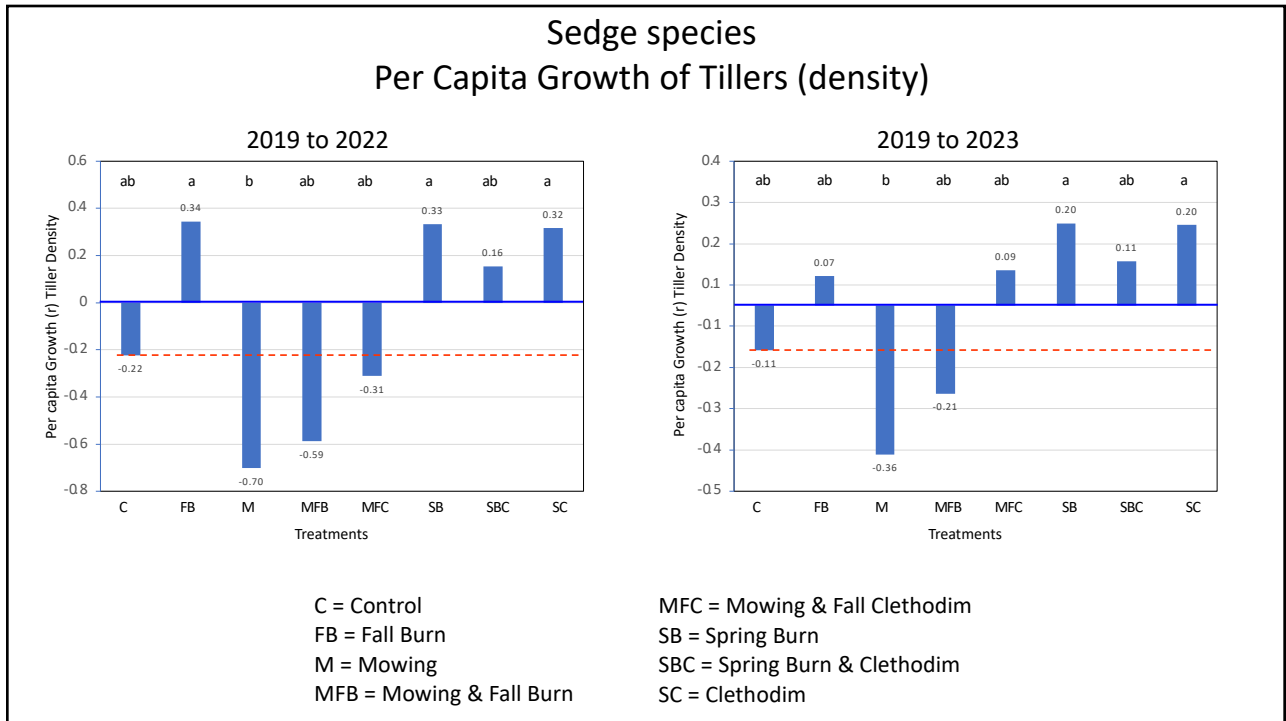
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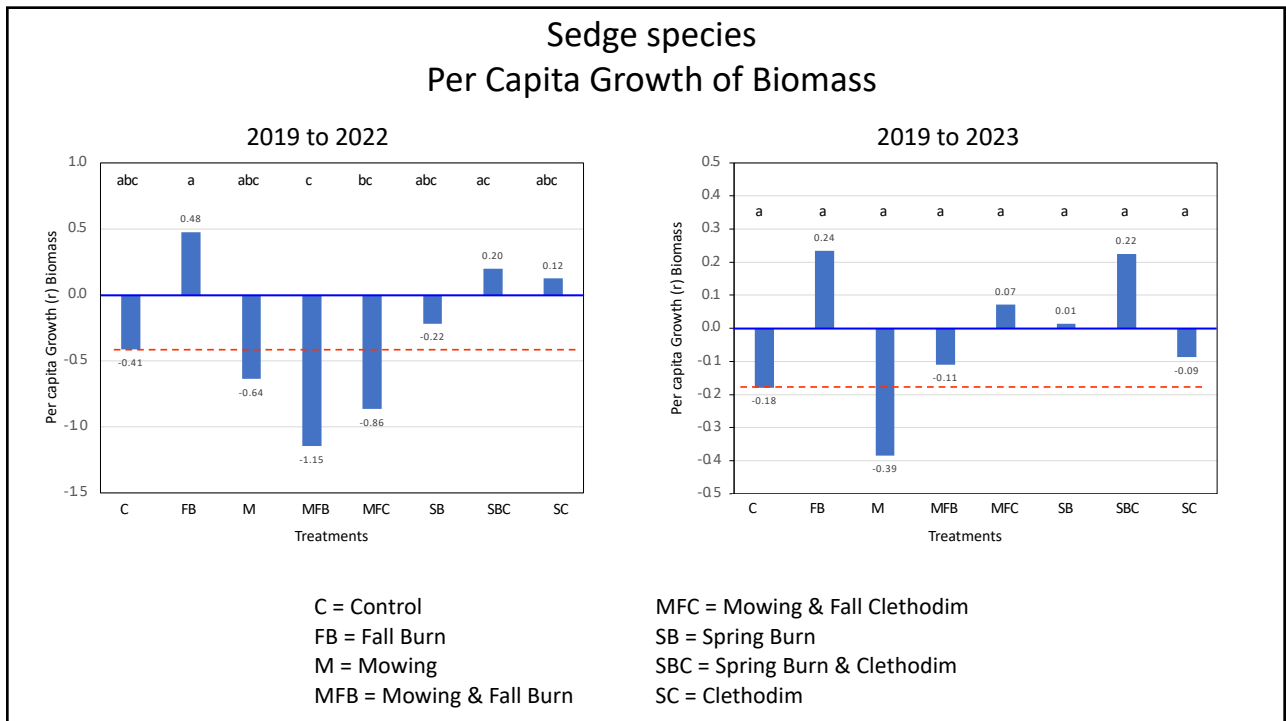
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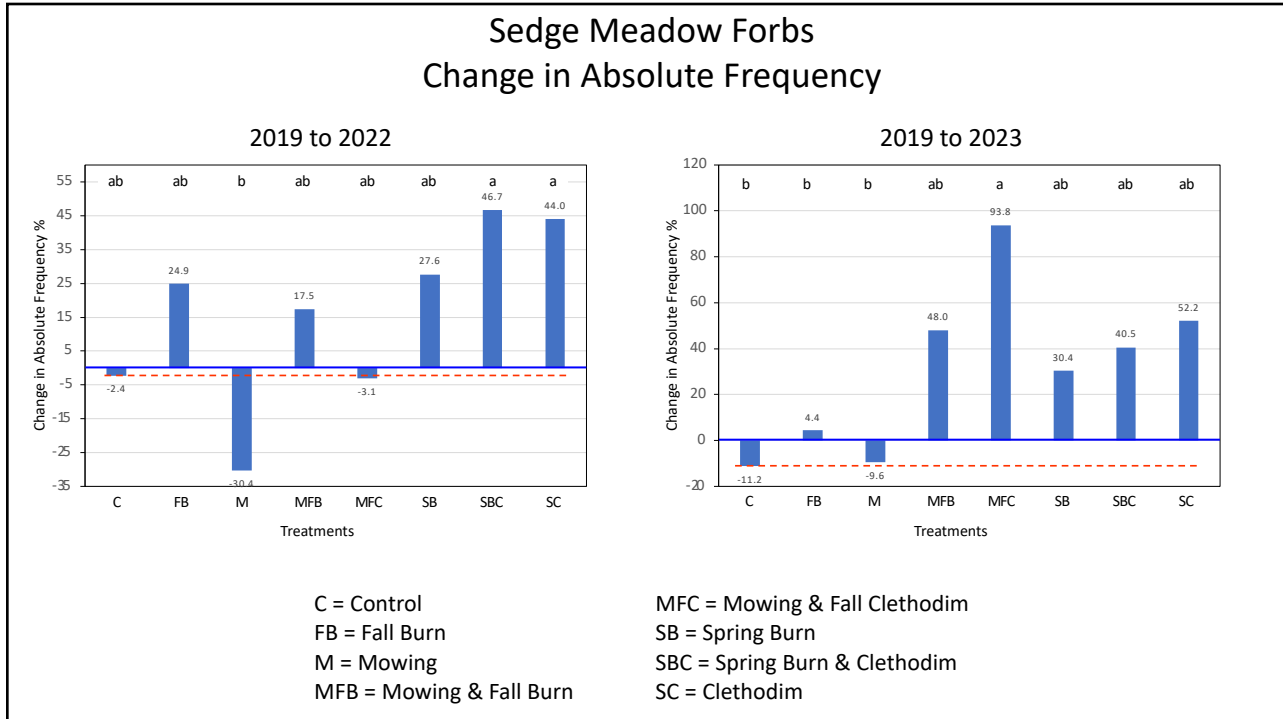
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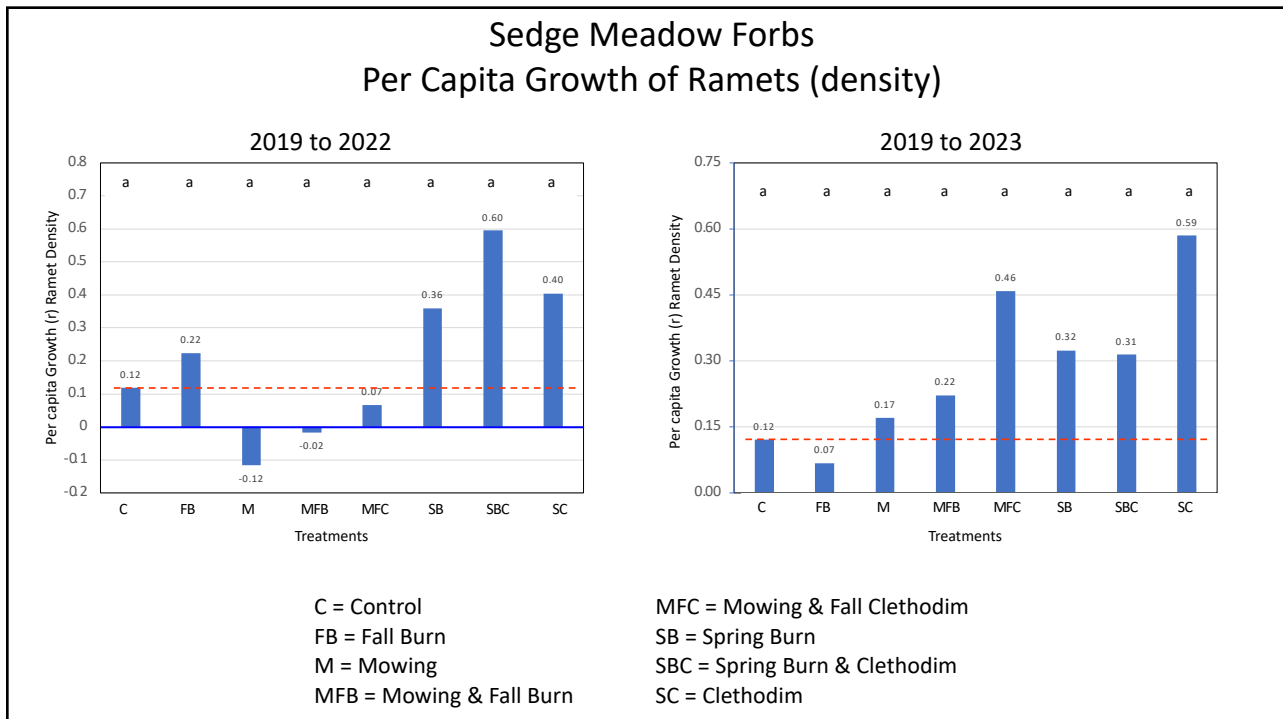
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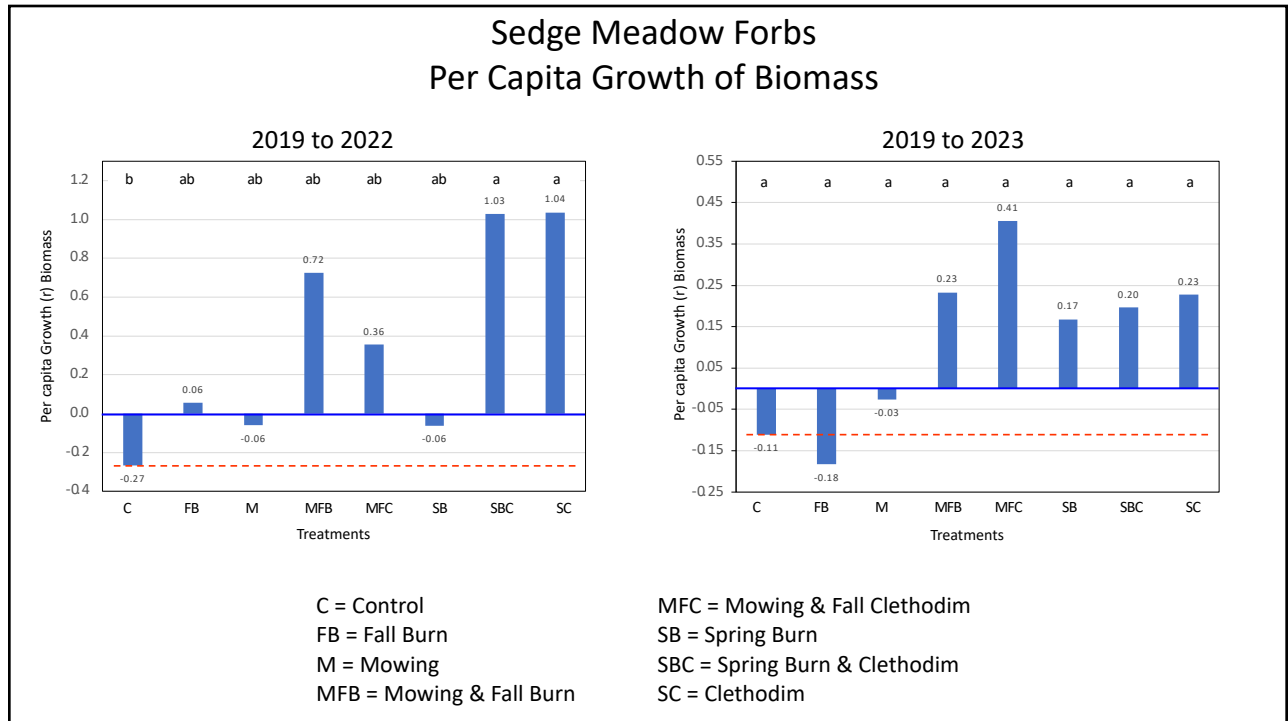
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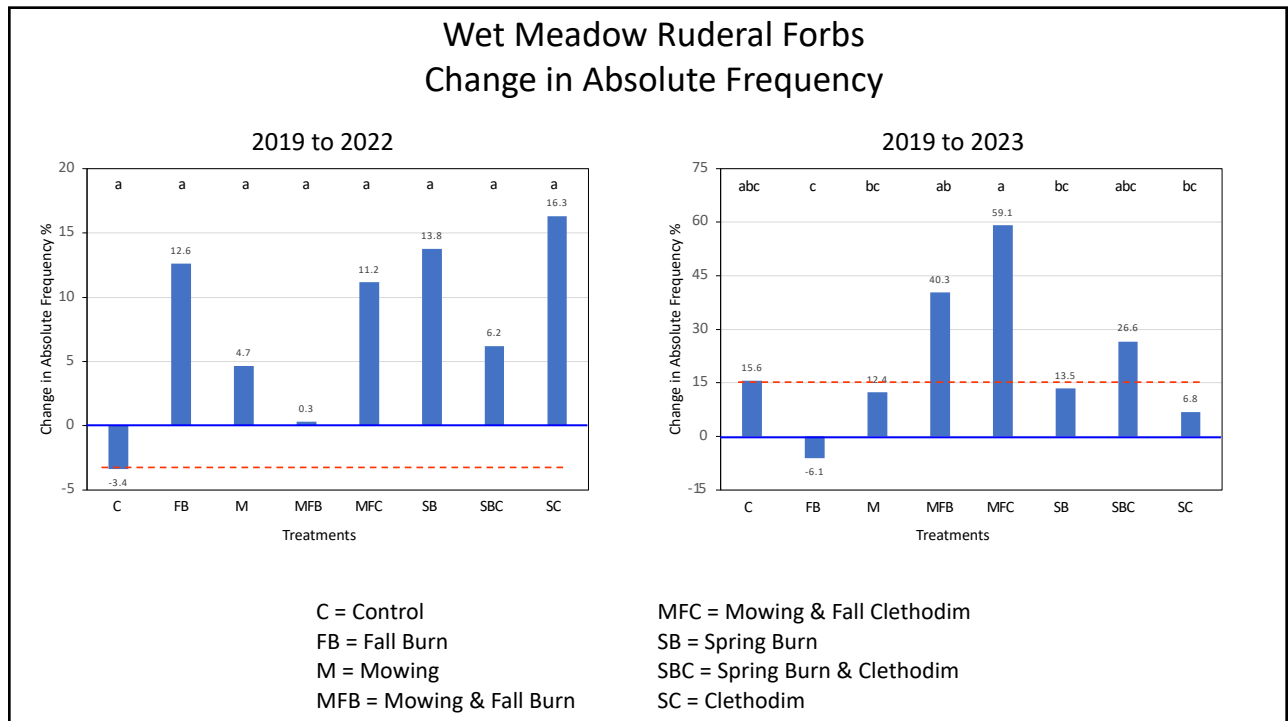
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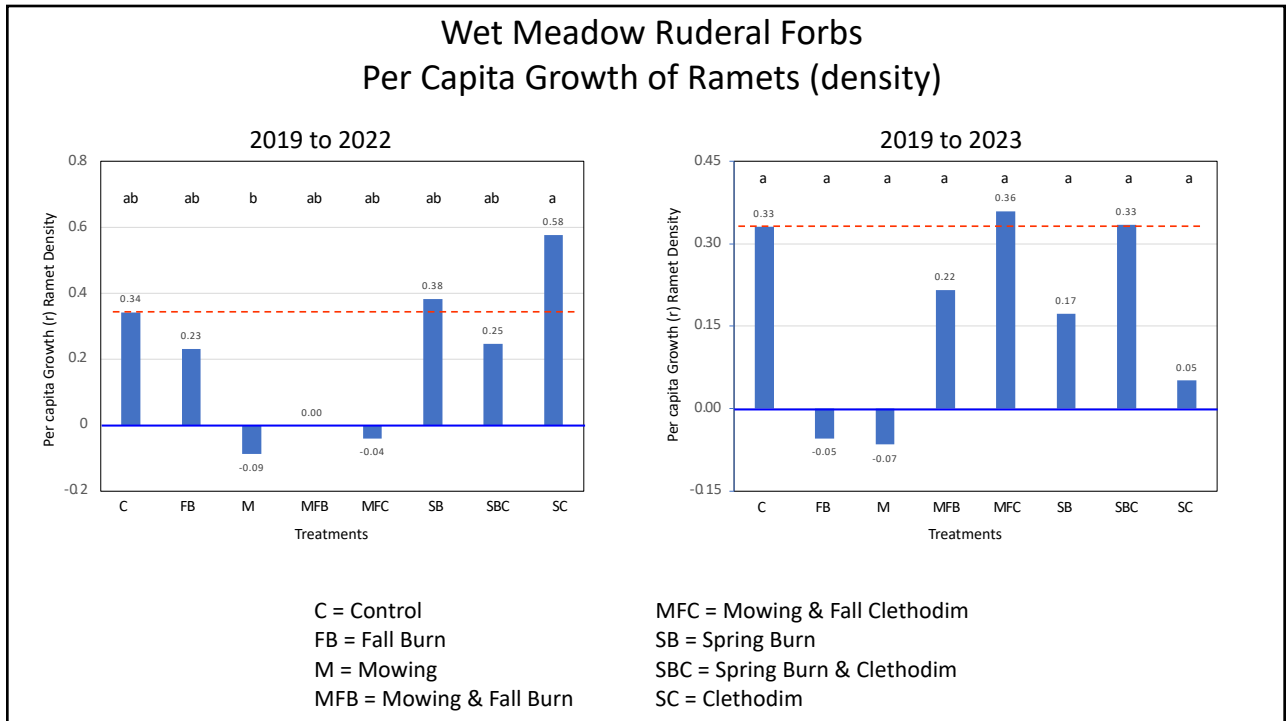
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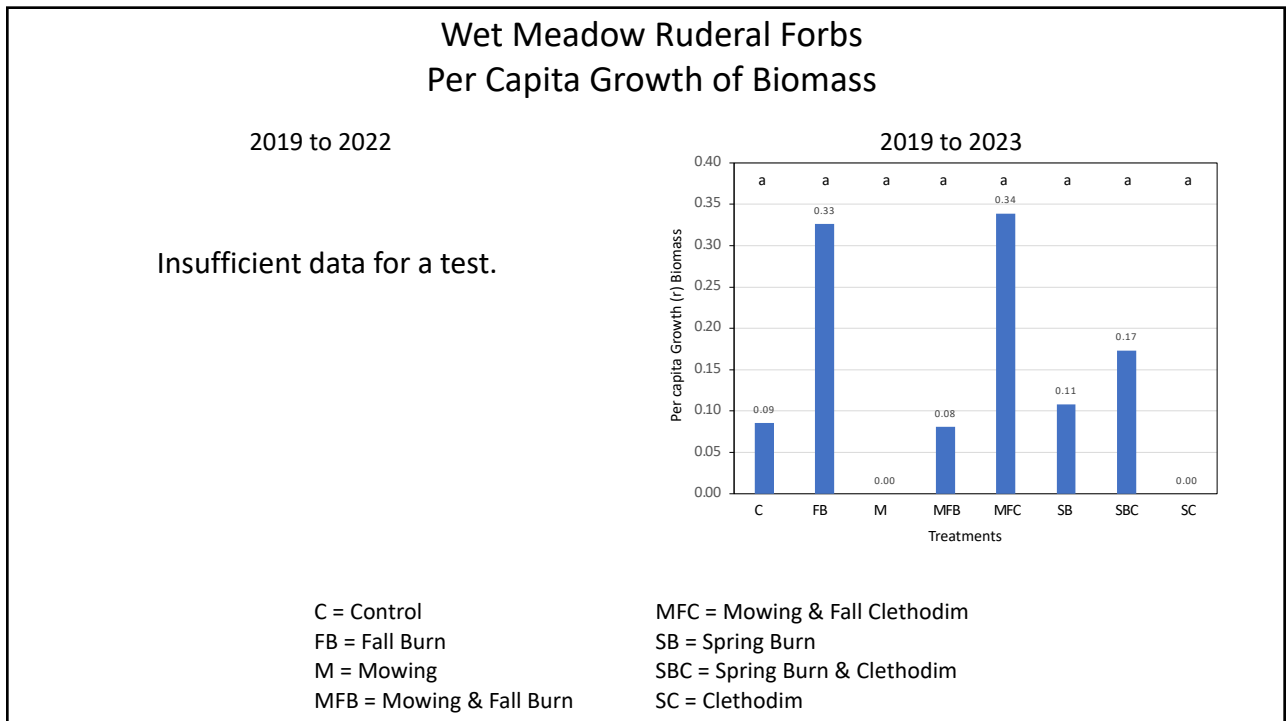
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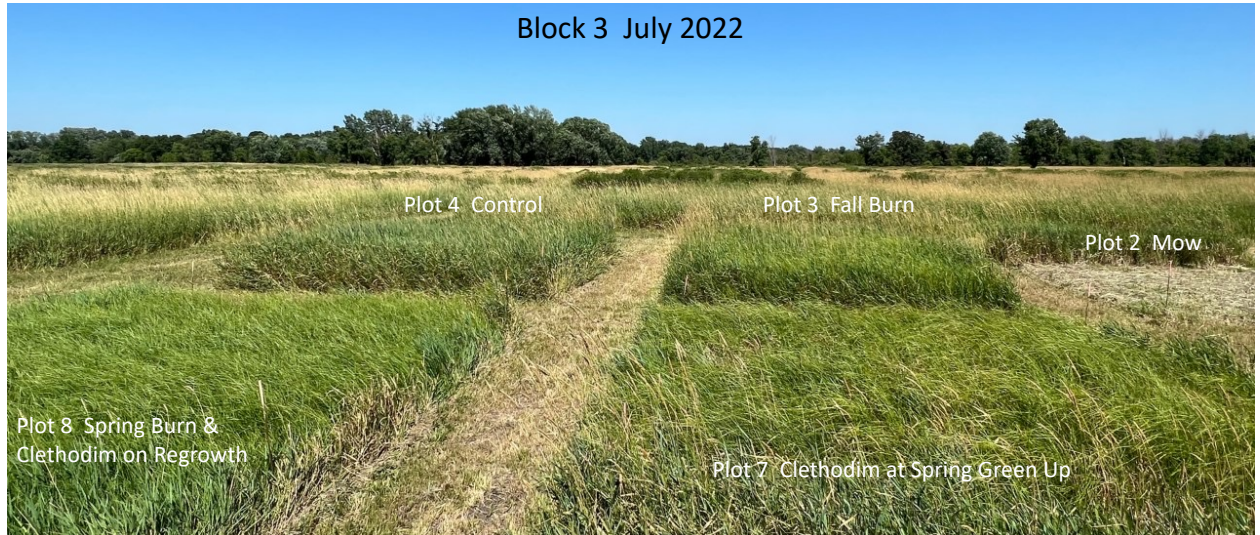


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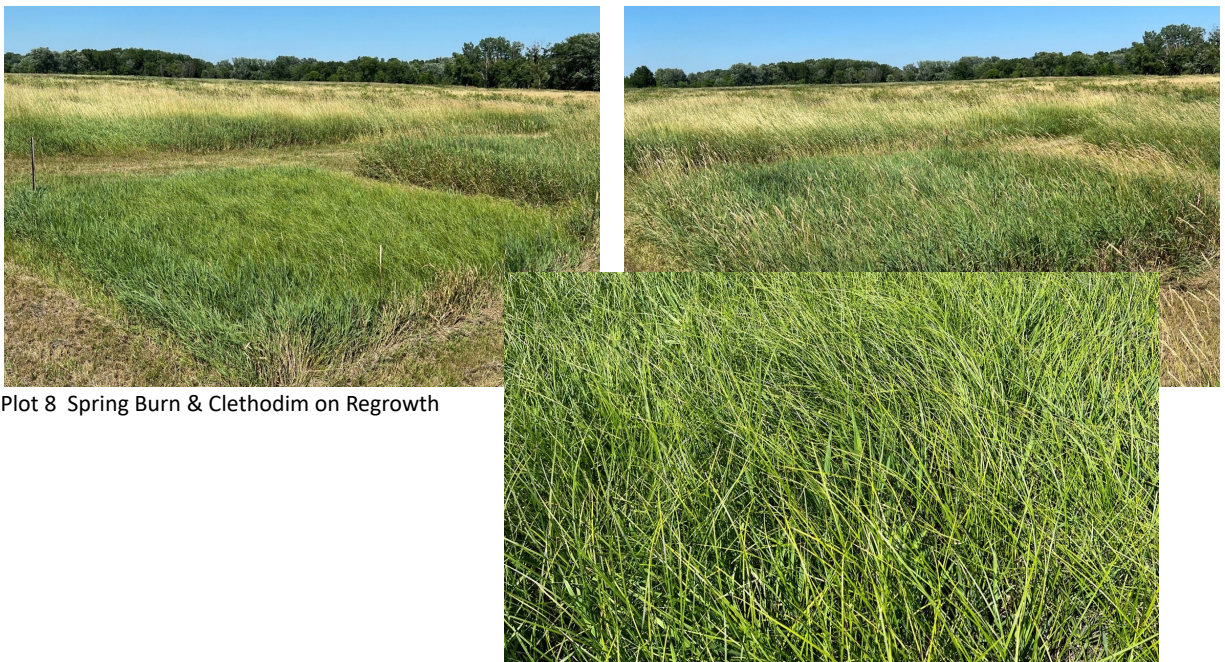
Research Results



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Research Results

Block 3 July 2022



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Assistance

- | | | |
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Elevation Variation



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