

Managing Deer Damage

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UNIVERSITY OF
MARYLAND
EXTENSION

Problem







Deer biology & behavior

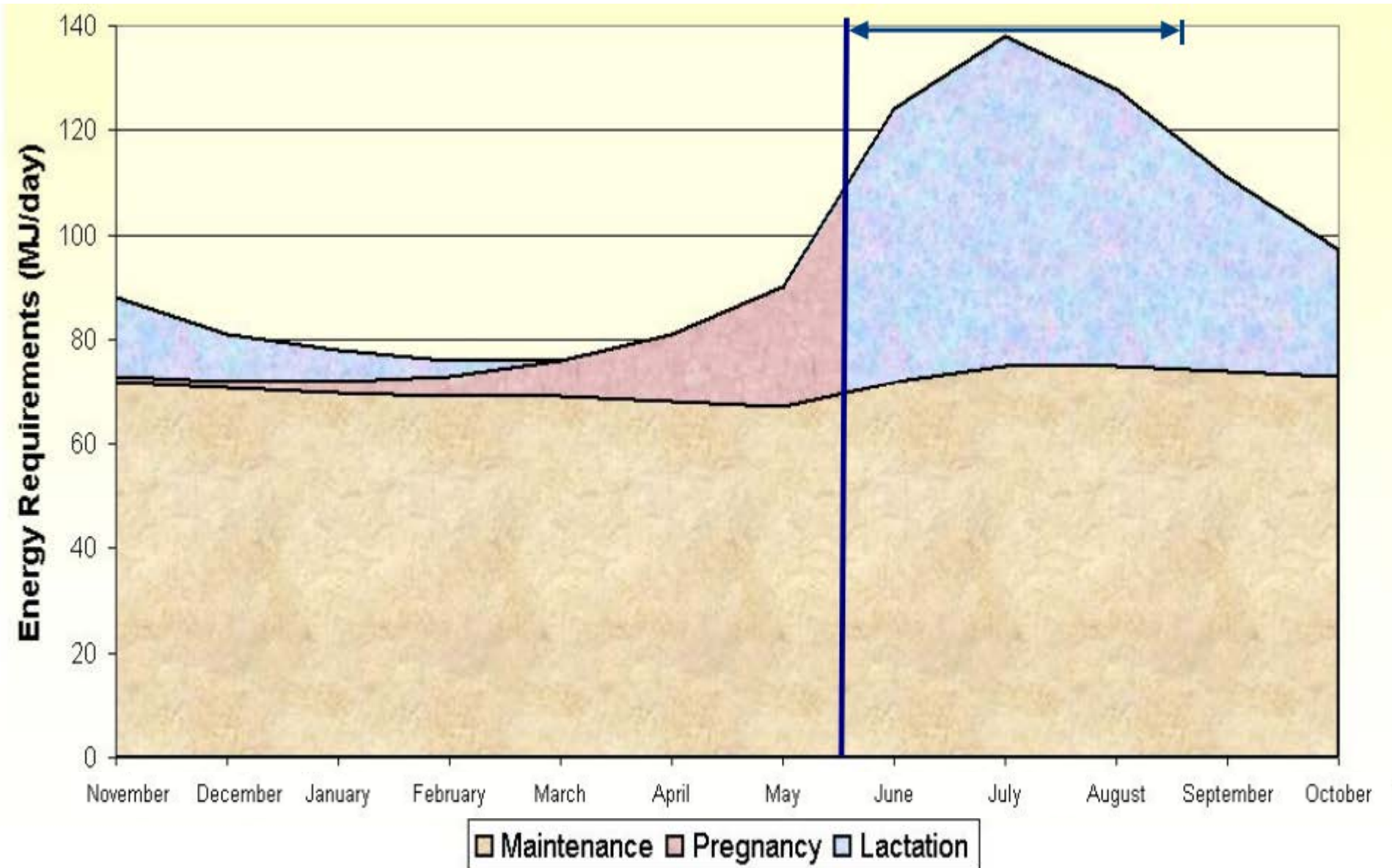
How Much Do Deer Eat?

- Deer eat ~6-8% of body weight daily (wet weight)
- 150 lb deer is 9-12 lbs green forage daily.



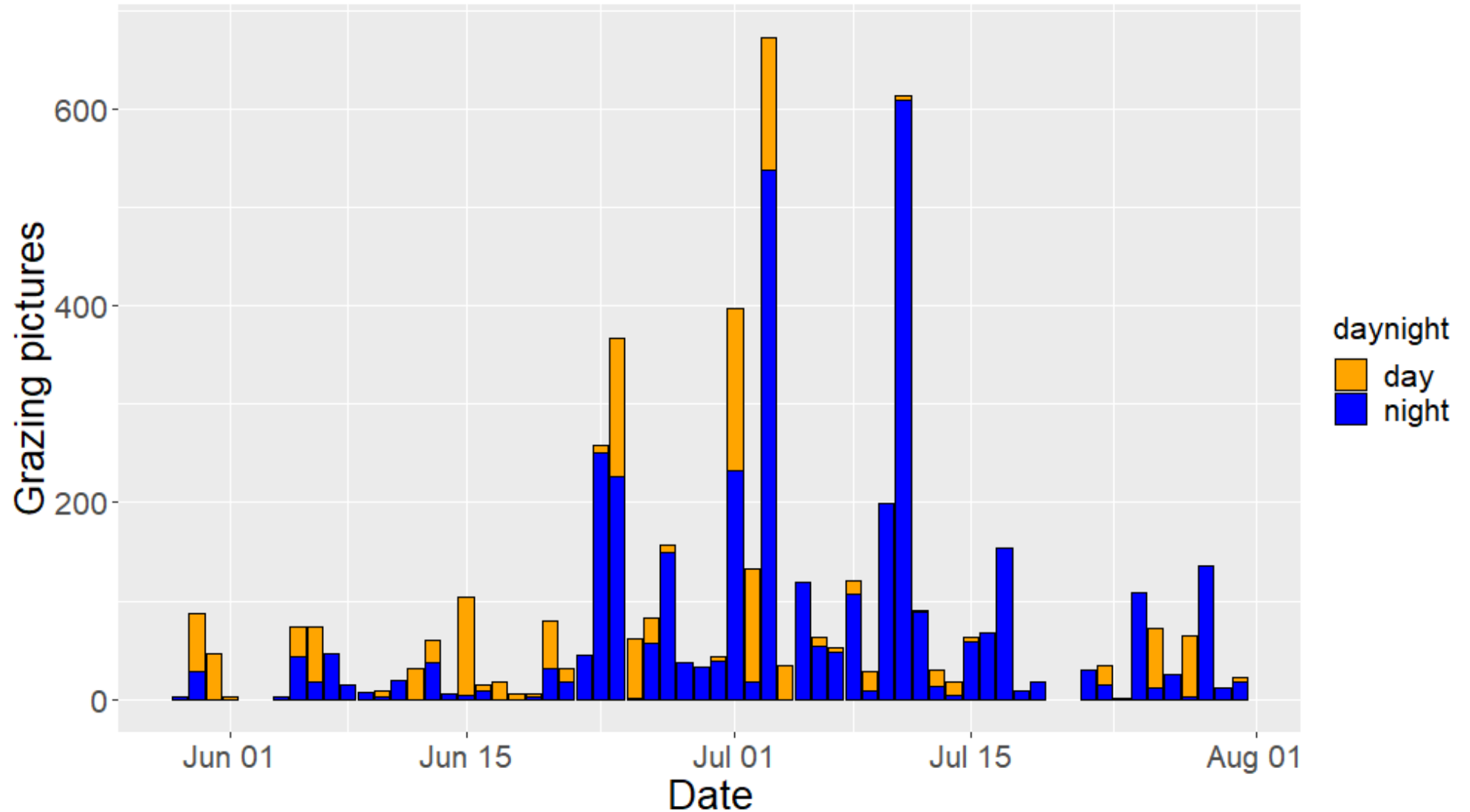
Dr. Steve Demarais, Mississippi State University.
National Deer Association.

Energy needs increase in late spring / summer



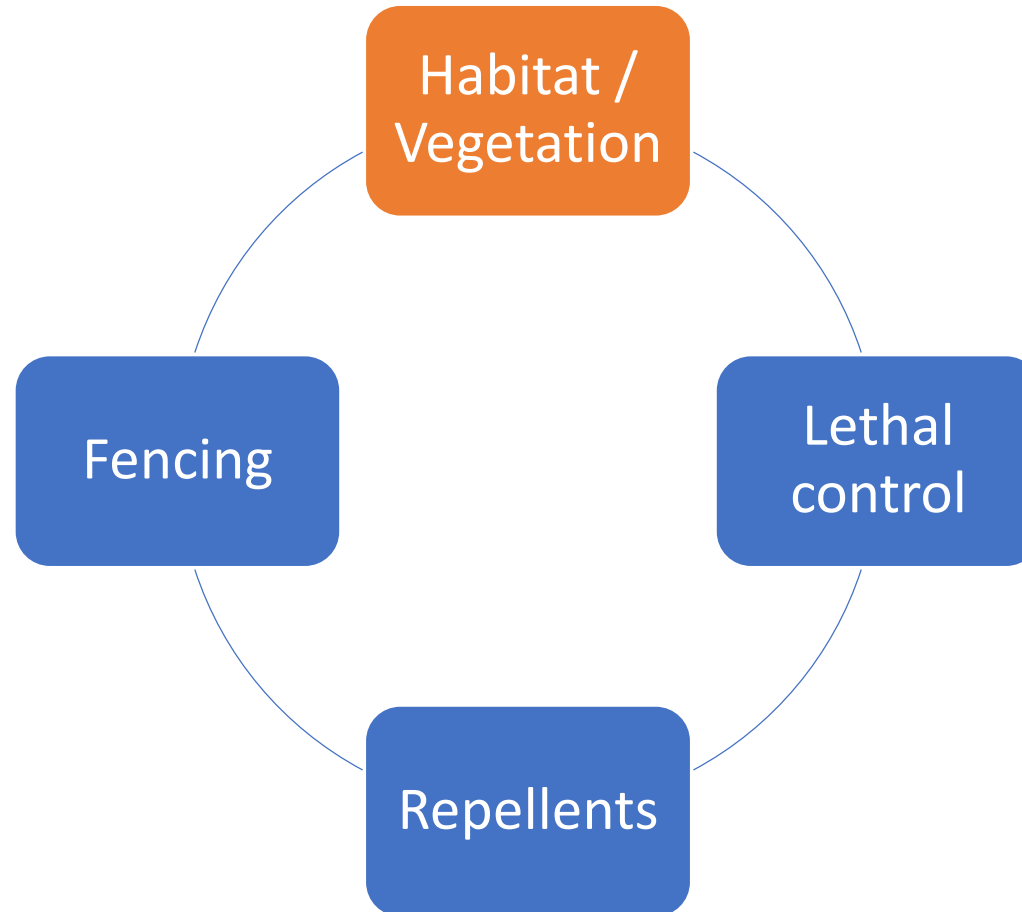
Deer activity in soybean field (2021)

- 5 days accounts for 45% of grazing activity
- 64% occurred after legal shooting hours



Management

Integrated Pest Management



What are forage soybeans?

- 1870s -1940s... soybeans used primarily as forage for livestock.
- WWII – production shifted to the beans and soybean meal.

Source: NC Soybean Producer's Association

- Late 1990s, 3 forage varieties developed and released by USDA ARS in Maryland.

Source: Michigan State University



Can forage soybean buffers divert deer from core agricultural areas and reduce crop damage?

- Forage Analysis
- Deer Activity with trail cameras
- Biomass
- Yield
- Farmer Survey


Forage soybeans

- Eagle Seed Big Fellow Group 7 Forage
- GT1 Brier Ridge; Group 4.7 Forage
- Biologic Group 6.2 Forage
- Biologic Group 5.2 Forage
- Pioneer Conventional Group 3.1
- Pioneer Conventional Group 5.2
- Eagle Seed Forage Flex - Dicamba, Liberty and Roundup

BIG FELLOW®

An extremely tall, large leafed, Glyphosate Ready forage variety. During its numerous university trials, it was found to be taller, provide more tonnage, more browse resistance, more protein, and more drought tolerance than other soybeans marketed for food plots, hay or silage.

It is also later than competitor's varieties giving you an advantage on body weight and antler size. When plants stay greener longer, you continue to feed the green leaves late in the fall, when deer are actively building mass. Deer simply prefer greener plants and Big Fellow® and Large Lad® can last 4-8 weeks longer. Big Fellow® is part of the blends GameKeeper® and Wildlife Manager's Mix®.



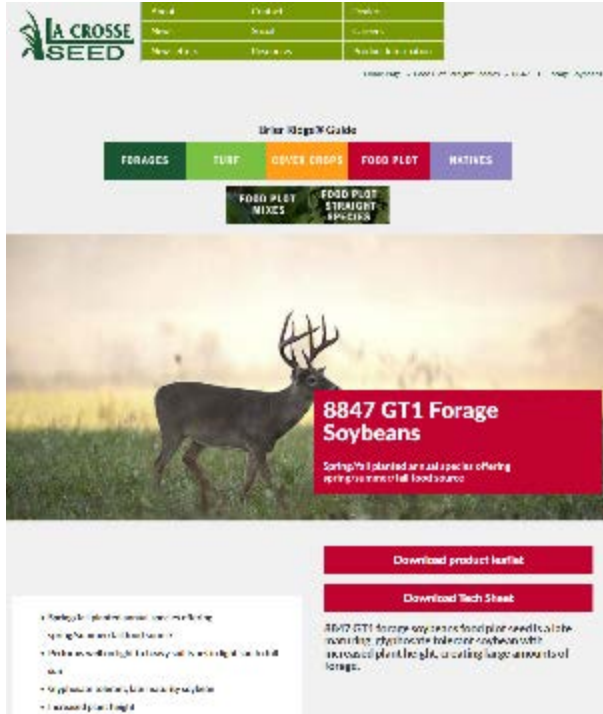
GAME CHANGER FORAGE SOYBEANS
\$79.99
Shipping calculated at checkout.

size
1 acre (50lb bag \$79.99)

SOLD OUT

NOTIFY WHEN AVAILABLE

Game Changer Forage Soybeans are glyphosate tolerant



A CROSSE SEED

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8847 GT1 Forage Soybeans

Spring's planted an all spec offering
as a green fall food source

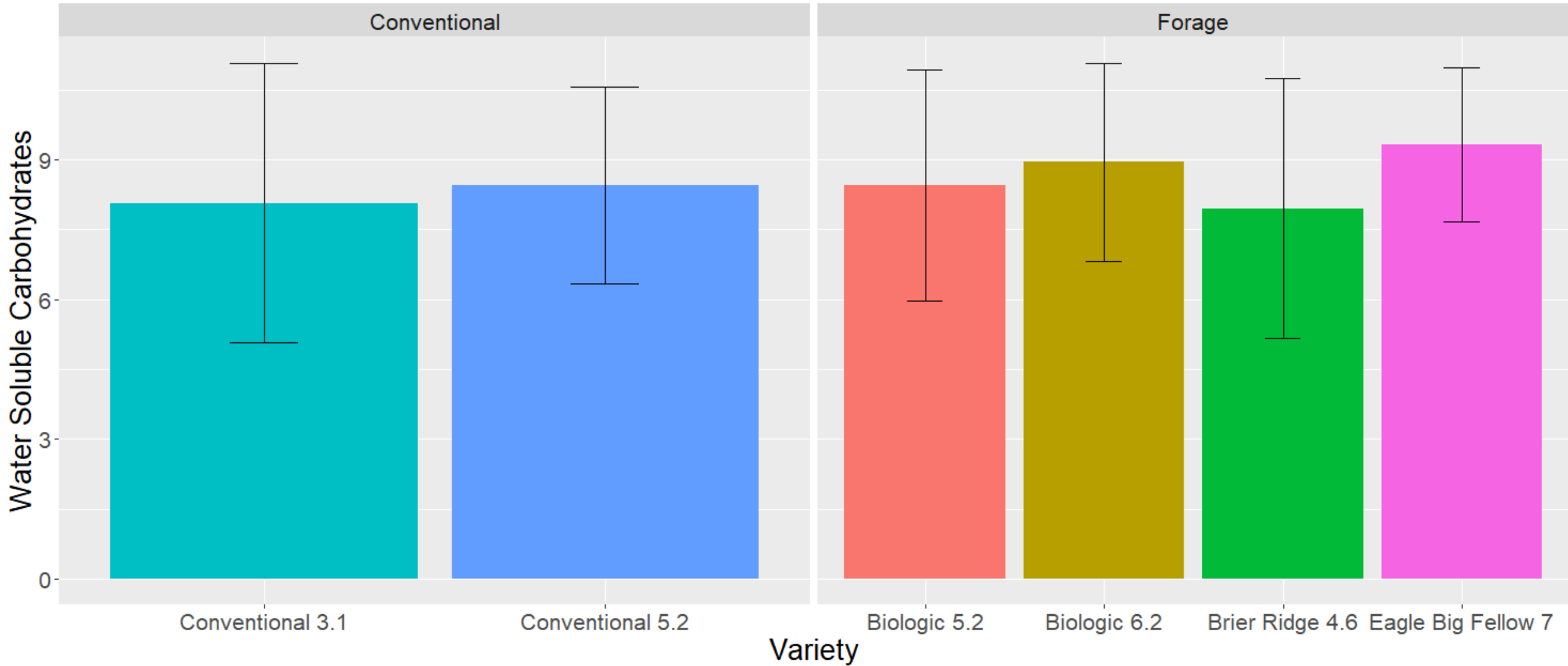
[Download product leaflet](#)

[Download Tech Sheet](#)

8847 GT1 Forage Soybeans are the perfect choice for the deer hunter. Glyphosate tolerant soybeans with maximum plant height, yielding large amounts of forage.

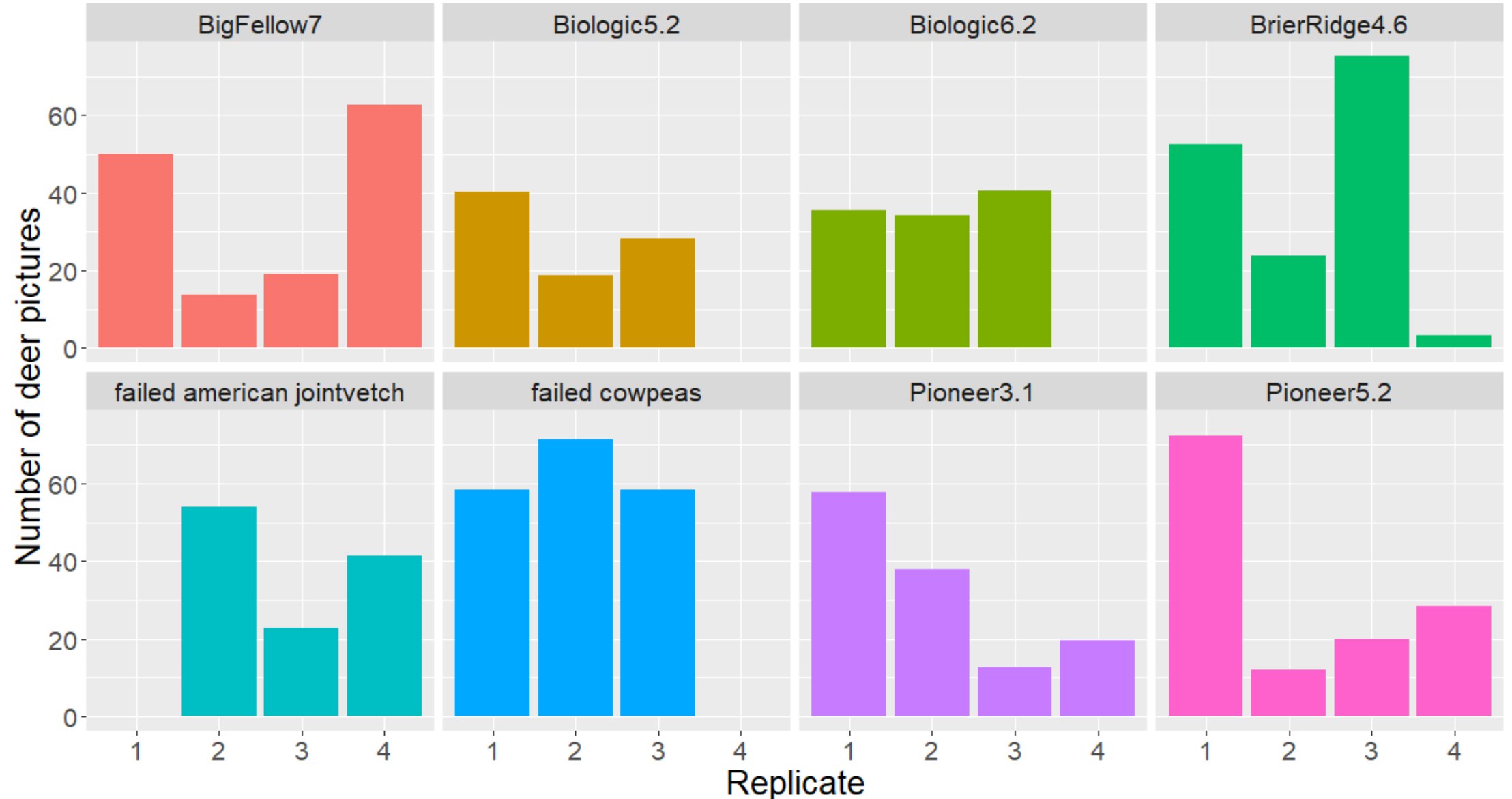
Forage Analysis

Forage Analysis – Sugars

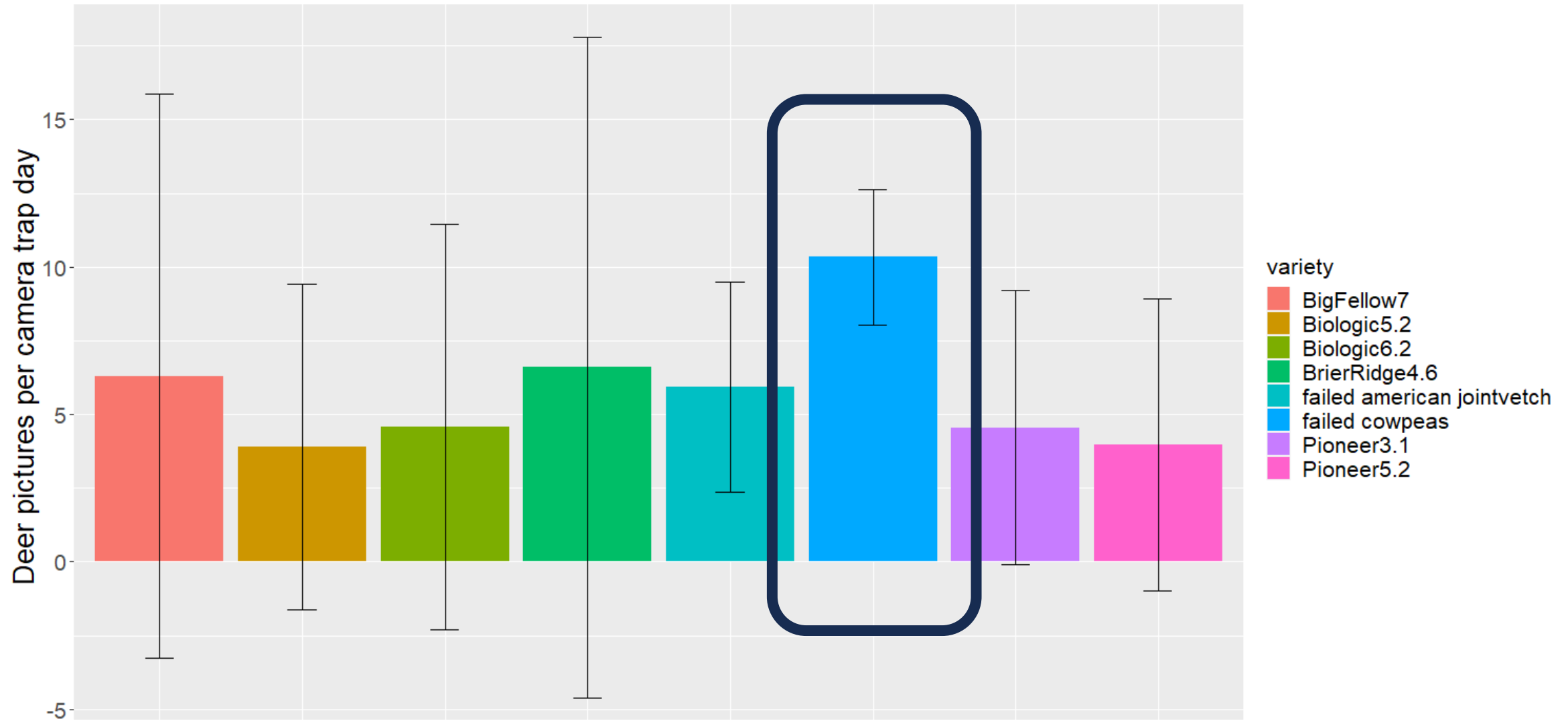


Deer Activity

Deer activity between soybean varieties



Not strong differences

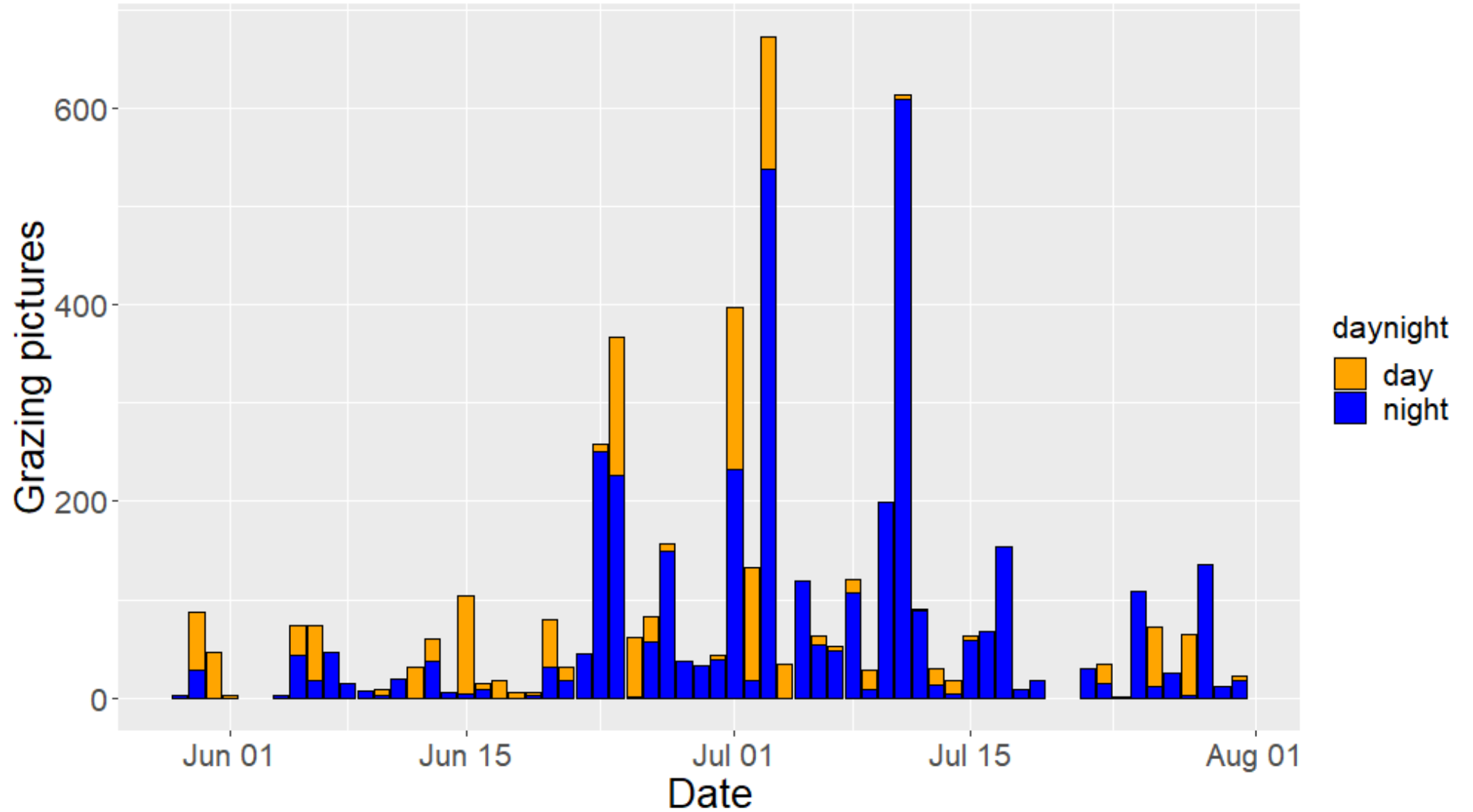


Consider forest management or
“Edge feathering”

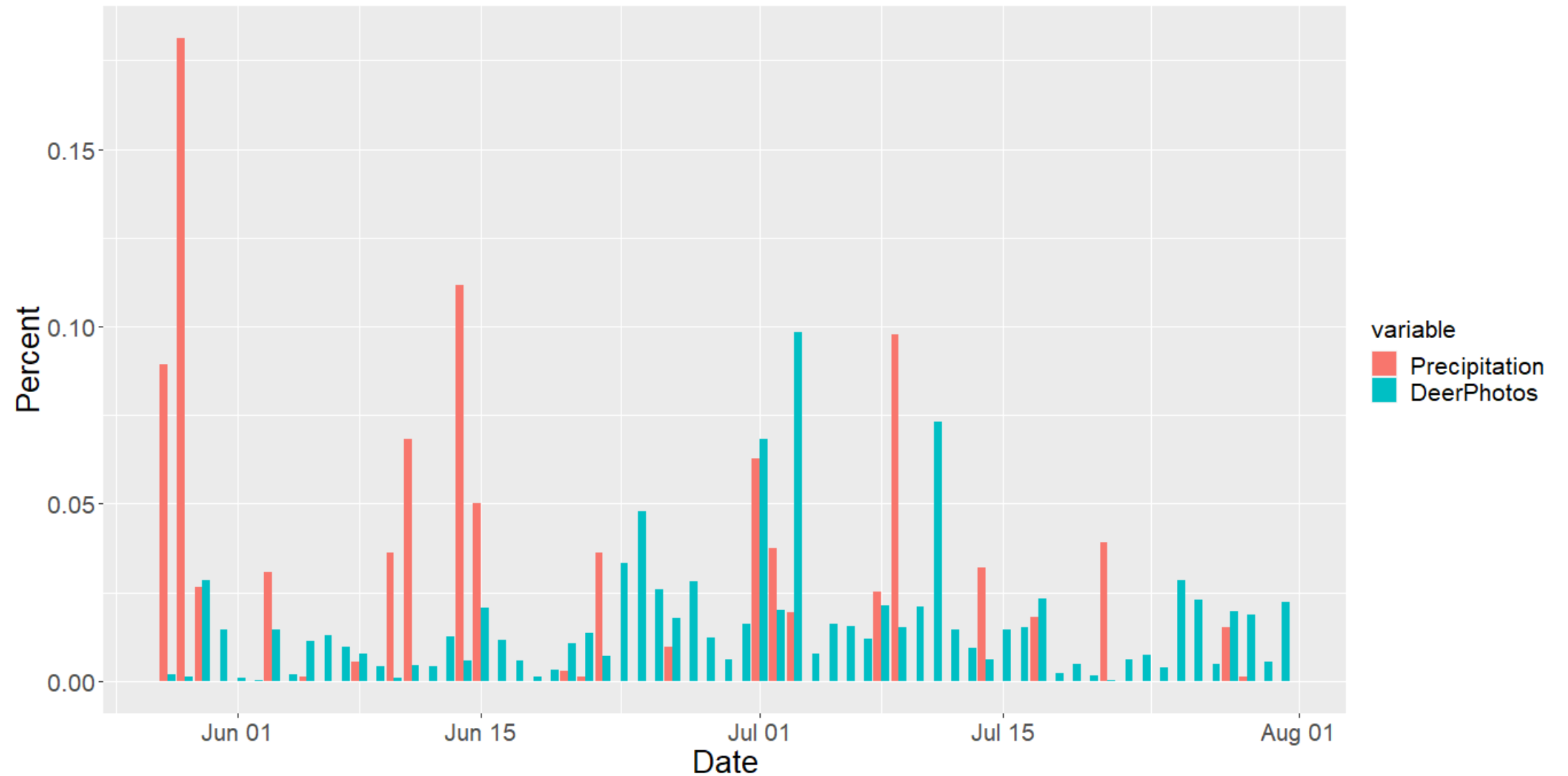


Unexpected
Finding about
Deer Activity

Deer activity in soybean field (2021)

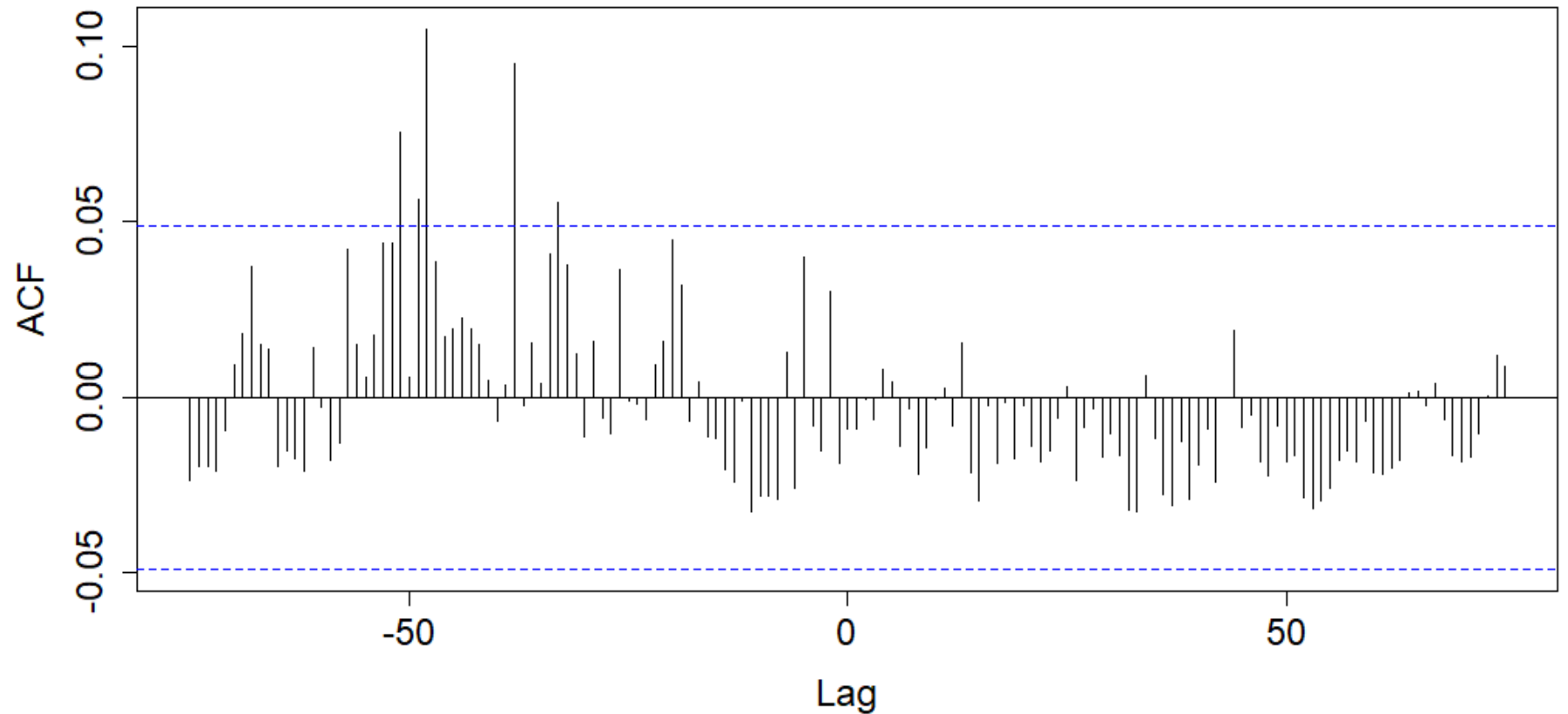


2021 Precipitation and Deer Activity



Cross-correlation Function Activity Lagged Precipitation

- Hours 38,
48, and
51



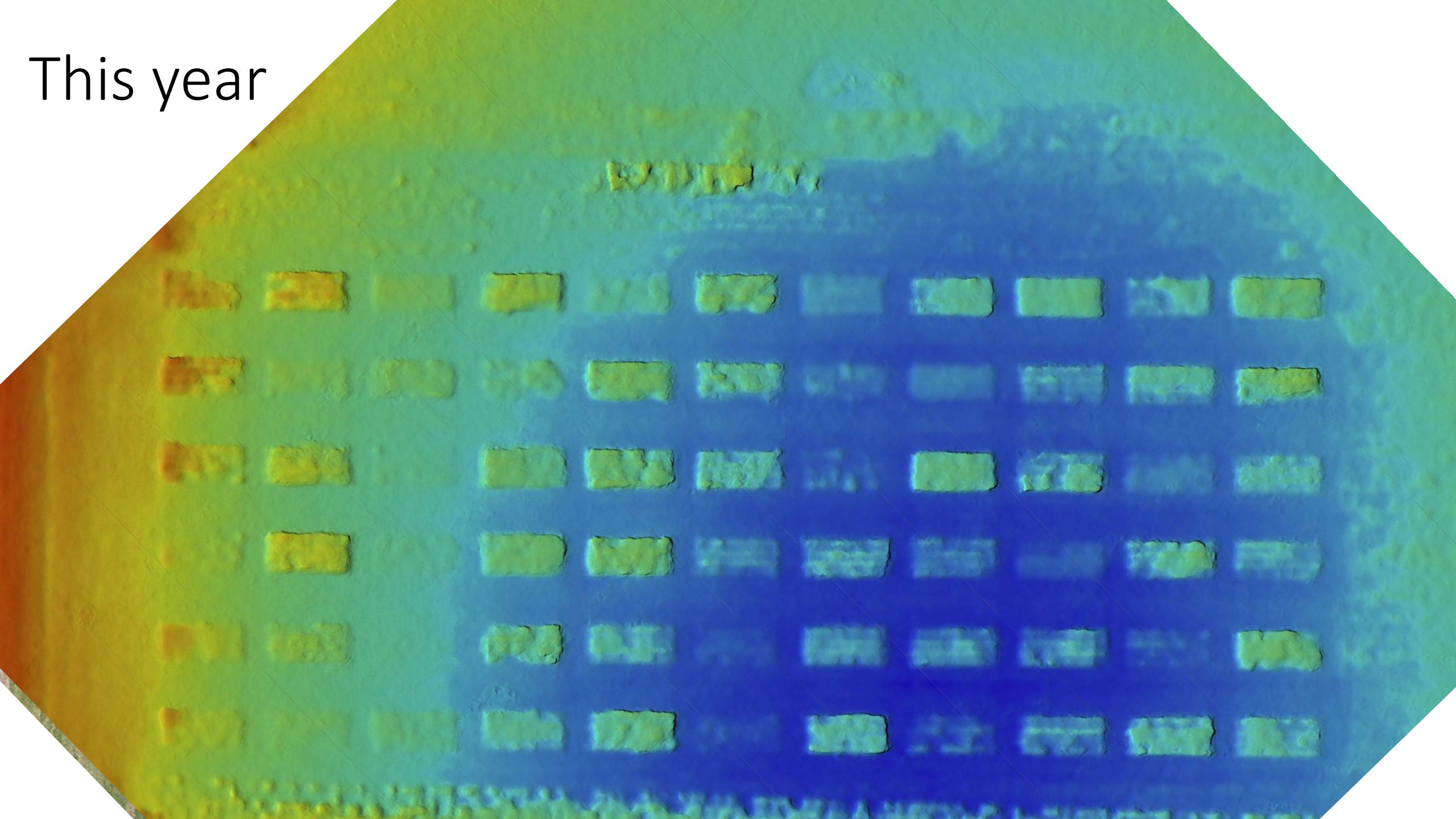
Biomass

Biomass

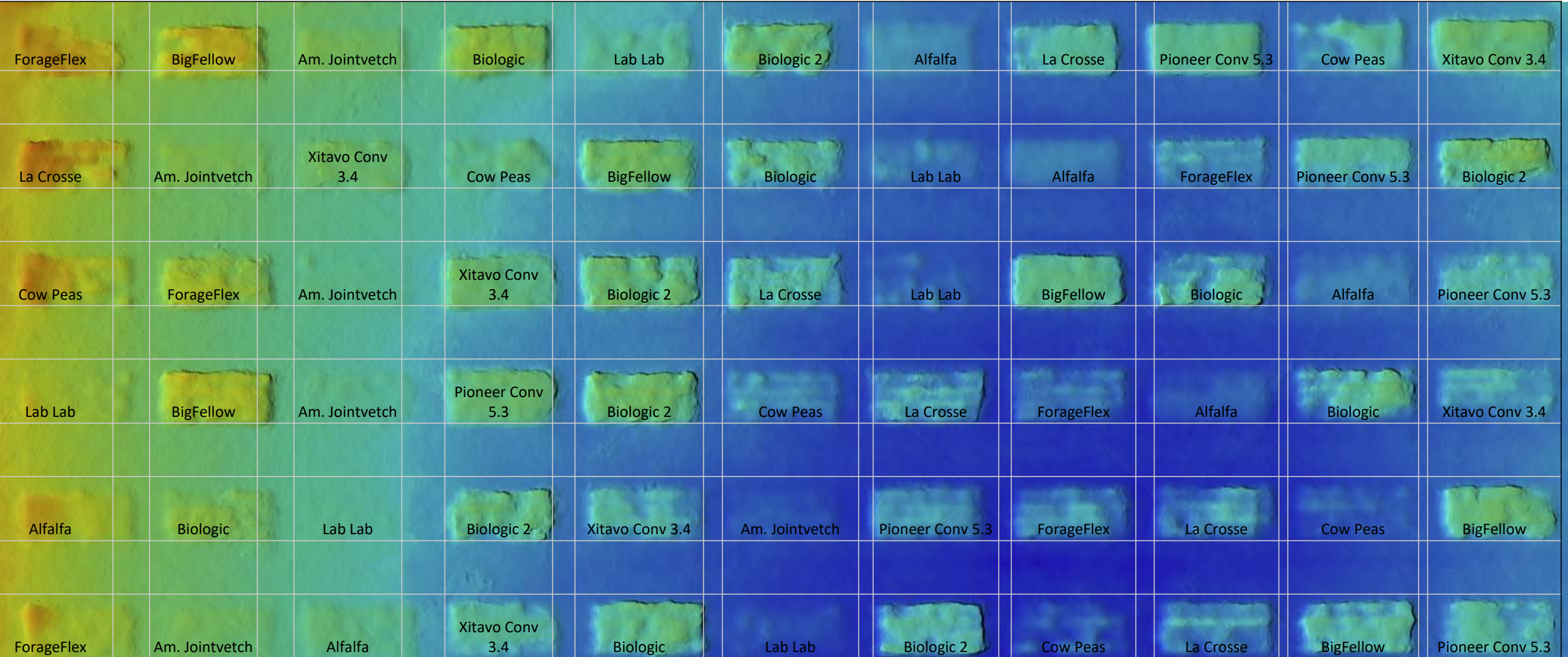
- 22-23% increased biomass between forage and conventional soybeans



This year



Height of Varieties

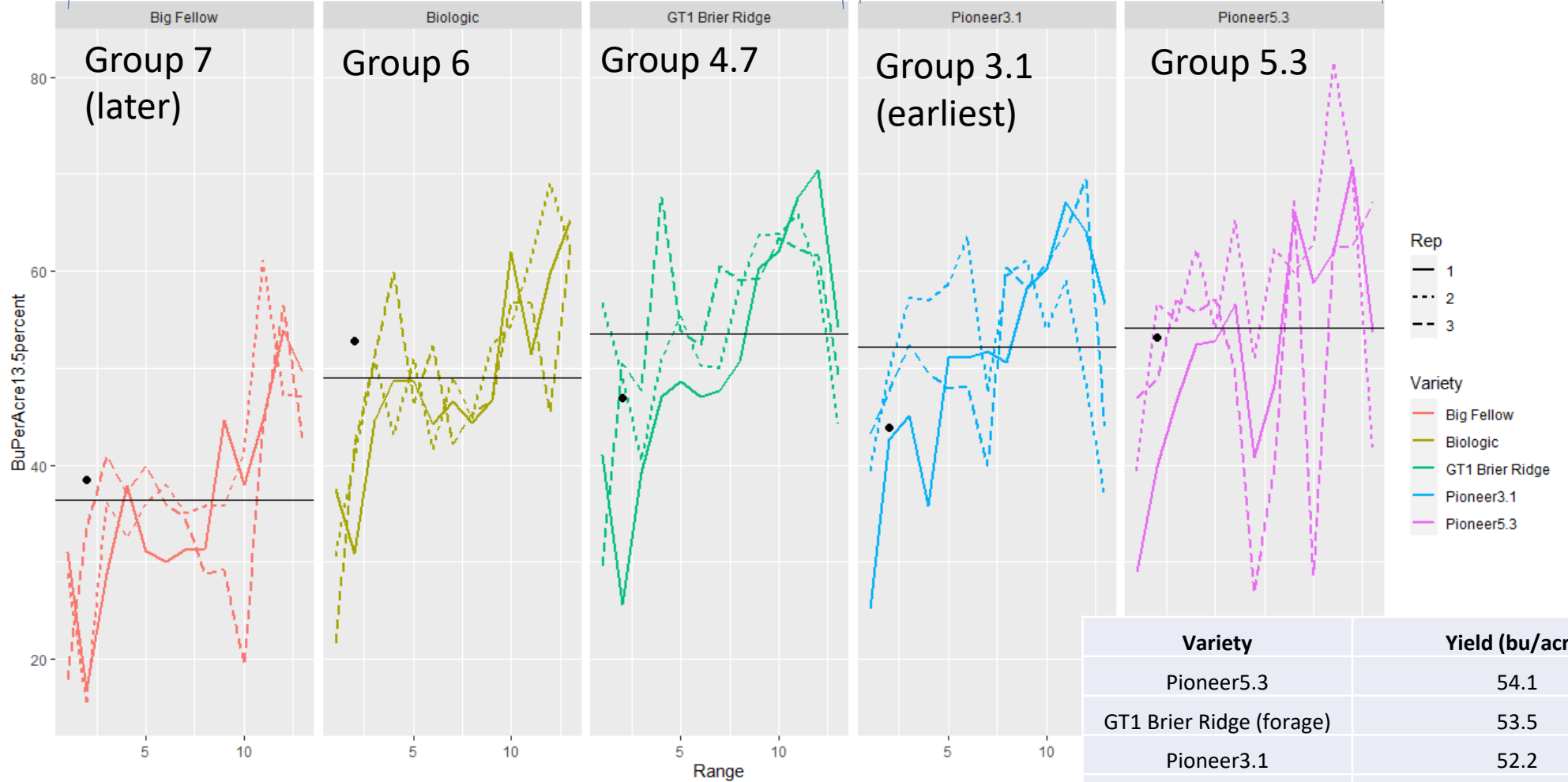


Yield

Yield data

Forage
soybeans

Conventional



Variety	Yield (bu/acre)
Pioneer5.3	54.1
GT1 Brier Ridge (forage)	53.5
Pioneer3.1	52.2
Biologic (forage)	49.0
Big Fellow (forage)	36.4

Farmer Feedback

Farmer feedback

Would you pay to purchase these soybeans for yourself to reduce damage in the future? These wer... 6 ⓘ

Would you pay to purchase these soybeans for yourself to reduce damage in t... ↑

Average

Minimum

Maximum

Count

Biologic, Game Changer both maturity groups @ \$80/bag

7.00

0.00

10.00

5

Eagle Seed, Big Fellow @ \$77/bag

7.00

0.00

10.00

5

GT1 Brier Ridge: \$50/bag

7.00

0.00

10.00

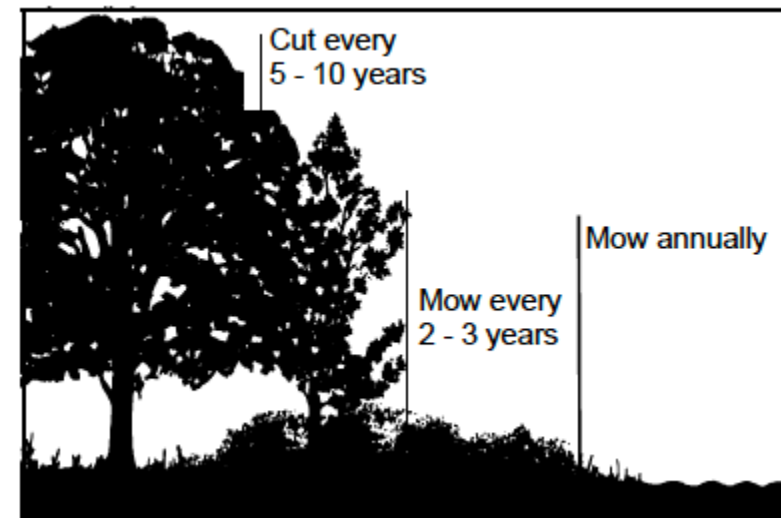
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Final Considerations

- Want to harvest the buffer or leave it for deer hunting?
- If you harvest:
 - get a maturity group closer to your conventional beans
- For hunting:
 - Early season hunting? Late maturing variety
 - Late season hunting? Higher soybean yield variety

Summary

- **Forage Analysis:** Certain soybeans had 10-15% higher levels of sugar content, but lots of variation
- **Deer Activity:** Highly variable – deer preferred weedy plots.
- **Post-precipitation response:** Increase in grazing approximately 2 days after precipitation events
- **Biomass:** Forage soybeans grow approximately 22% more biomass although lots of variation in field
- **Farmer feedback:** generally positive – 7 out of 10



Questions?

Thanks to collaborators and funders

- Taylor Robinson
- John Draper
- Tom Eason
- Joe Streett
- Louis Thorne
- Joe Crank

Collaborating farmers

- Joe Streett
- Jim Lewis

Co-PIs

- Jim Lewis
- Nicole Fiorellino

- Evan Griffiths
- Patricia Guillen
- Jackie Quinones



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Feedback

<https://go.umd.edu/ENRTEACH>

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